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THE ECONOMIC HISTORY OF CHINA

With Special Reference to Agriculture

BY

MABEL PING-HUA LEE, A. M.

Sometime University Scholar in Economics
at Columbia University

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IN APPRECIATION OF MY AMERICAN FRIENDS, TO FRIENDSHIP AND
BETTER UNDERSTANDING BETWEEN THE AMERICAN AND CHINESE PEOPLES:
MAY THERE BE FULLER EXCHANGE OF KNOWLEDGE AND EXPERIENCE
EACH CONTRIBUTING IN HELPFUL CO-OPERATION TO THE
WELFARE AND HAPPINESS OF ALL

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2697 B. C. Huangti

2357-2261 B. C. Yao

2255-2208 B. C. Shun

2205-1766 B. C. Hsia Dynasty
Great Yu 2205-2198 B. C.

1766-1122 B. C. Shang or Yin Dynasty

1122-256 B. C. Chow Dynasty .....Tsing Tien System
West Chow 1122-771 B. C. (Supremacy of Empire)
East Chow 770-256 B. C.
1. First part East Chow
2. Chun Chiu 722-481 (Spring and Autumn, Period of Intellectual Growth)
3. Li Kua 403-222 B. C. Warring States struggle for supremacy of 7 states..... } 350 B. C. Shong Yang abolishes Tsing Tien System

246-207 B. C. Chin Dynasty

202 B. C.—220 A. D. Han Dynasty
First Han 202 B. C.–24 A. D. ... } Unsuccessful attempt of Wong Mong to restore Tsing Tien 1-24 A. D.
Second Han (Eastern Han) 25-220 A. D.

190-264 A. D. Three Kingdoms
(overlapping with end of Second Han)
Wai Kingdom (of 3 Kingdoms) 220-264 A. D.

265-617 A. D. Six Dynasties (Southern)
Tsin 265-419 A. D.
West Tsin 265-316 A. D.
East Tsin 317-419 A. D.
Sung (House of Liu, not regular Sung Dynasty) 420-478 A. D.
Chi 479-501 A. D.
Liang 502-556 A. D.
Chen 557-588 A. D.
Sui 589-617 A. D. (ruled over reunited empire)

[1] This table is made according to Tsi Yuan, a recently published Chinese dictionary.

317-588 A. D. Northern Dynasties
(co-existent with above dynasties of East Tsin to end of Chen)
Northern Wai 386-534 A. D.
Hsiao Wenti 471-499 .....Resumption of Public Land Distribution
Eastern Wai 534-550 } both co-existent
Western Wai 535-570 }
Northern Chi 550-577
Northern Chou 557-581 A. D.

618-905 A. D. Tang Dynasty
Yang Yen 780 A. D. .....The Bi-annual Tax System

907-959 A. D. Five Dynasties
Later Liang 907-959
" Tang 923-935
" Tsin 936-946
" Han 947-950
" Chow 951-959

960-1276 A. D. Sung Dynasty
Northern Sung 960-1126 A. D.
Wong An Shih 1069 .....System of Farm Loans and Relief
Southern Sung 1127-1276
(Kin Dynasty co-existent)

1277-1367 A. D. Yuan Dynasty

1368-1643 A. D. Ming Dynasty
Ming Tai Tsu 1368-1398 A. D.

1644-1911 A. D. Tsing Dynasty

PREFACE

THE question of soil depletion is an all important one in the study of European history, and its effects are everywhere apparent. Because of soil depletion fertile valleys have become lone and desolate, civilization in its onward march having deserted its old settlements when they no longer were able to yield the crops necessary to maintain human life. Just as the flourishing civilizations of Egypt and Babylonia are now buried beneath vast deserts; so Rome, the proud conqueror of the world, was so reduced by soil depletion that it is now recognized that this played an important part in making possible her conquest by the barbarians. The history of modern industrial England took a happier turn because, when soil exhaustion made agriculture no longer profitable, her people turned to sheep raising, which change was a starting point towards her modern career as a manufacturer of woolens and her further industrial development.

In view of these facts, the situation in China seemed to present a striking contradiction. She is the oldest nation in existence, her people have been farmers for forty centuries; yet soil depletion is seemingly something unknown there. With yields that excite the imagination, her land, after cultivation for forty centuries, is still able to support her teeming millions. How are we to understand the problem of soil exhaustion in the case of China? [1]

[1] 'Tis true that during these few months news has come of a terrible famine over there. But the cause given is a two-year drought. Lack of production of crops due to lack of two years' rain is certainly no

It was at the suggestion of Professor Simkhovitch, who has emphasized the effect of soil exhaustion on ancient Rome, in his "Rome's Fall Reconsidered"[1] that this study of China's economic history was undertaken. Professor Harriet Bradley of Vassar, the author of *Enclosures in England,*[2] and the writer were fellow students, Dr. Bradley working on the agricultural situation in England and the writer on that in China. Therefore our monographs deal with similar problems in economic history.

This work is a purely inductive one in the sense that there were no pre-conceptions whatever in the mind of the writer other than the knowledge of the striking contradiction which the Chinese situation seemed to present. Sources were examined for whatever light they might shed on the subject and the data gathered for the study are exhaustive in that they represent every reference dealing with agriculture and economic administration found in the Chinese Encyclopedia. Since this study is the first modern survey of Chinese economic history, I have appended translations of all of the important source material for use as references for further study and for bringing into relief the policy or the interpretation developed in the monograph. This is the first time that most of this material has been translated, and I have made the English rendering as literal as possible to preserve the quaint simplicity as well as the spirit of the authors. Each selection is placed under its particular dynasty and, whenever possible, in sequence under

cause for alarm about the fertility of the soil. The belief in the fertility of Chinese soil remains unshaken, and the problem of soil-depletion in China still remains for scientific study.

[1] Simkhovitch, V. G., "Rome's Fall Reconsidered," *Political Science Quarterly*, vol. 31, p. 201.

[2] Bradley, Harriet, *Enclosures in England*, Longmans, Green & Co., 1918.

the particular emperor in the dynasty. In cases where the source itself gives no statement as to its specific period, clues such as names of well-known persons mentioned have been used for aides in classification. For judgment of the accuracy of the different sources, facts concerning the time and the authors of the various works were looked up in the Imperial Index; and I have incorporated this information in the annotated bibliography for the use of those who may be specially interested.

On perusal of the source selections it will be seen that the Chinese economists seem to group themselves into two general schools of thought: the classical school and the practical school. Of course at the beginning there was only the practical school, in that, as situations arose various measures were advanced to meet them. But after the first part of the Chow period, or the maturity of ancient Chinese civilization, there is the distinct division between those who looked back upon the time of Yao and Shun and the sages for precepts to remedy every situation, and those who disregarded all authority of classical times and set out to solve each new individual problem as they themselves understood it. The classicists erred in that they neglected to make any new study of the changing conditions, deeming the old tested remedies to be all potent just as they had been in the past. The measures of the golden age were indeed potent for their time, otherwise the golden age would not have come to pass; but in their enthusiasm for the old, these classicists forgot the fact that old remedies apply only in so far as conditions are similar. As the classical school erred when it did not fully appreciate the new situations, so too the practical school could only succeed insofar as it was correct in its comprehension of the conditions presented, and the extent of its success was in accordance with the degree to which it took into consideration all the elements in the case. The writings

of both schools, however, are valuable in helping us to a better understanding of the historical conditions. In every case they have been found to concur in the description of facts and the recording of events, thereby giving us more definite knowledge of the general conditions of the times. And the efforts and experiences of each shed still more light on the remedies that the situations demanded.

Since the time of so-called old China, preceding the latter half of the Chin Dynasty, there has been very little historical study of Chinese questions. The foreign awakening brought a new world into China's ken and young China has been too absorbed in the learning of the new to give attention to the old. A new school grew up which favored breaking away from the old and embracing the new, in the belief that only by forgetting her past and adopting Western ideas and methods, could she make progress and gain happiness.

But in this eagerness for the new it was soon found that not all modern improvements could be applied to the existing conditions. Thus many labor-saving devices lose their value in a country where land is dear and labor cheap. Just as it was discovered that past remedies cannot cure modern economic ailments, so modern improvements are worse than useless if the conditions are dissimilar. Innovations are improvements provided they are adapted to the conditions on which they are to be grafted but not otherwise.

We can neither afford to be dominated by the authority of the old just because it is old, nor by that of the new just because it is new. Because a policy of the ancients inaugurated a golden age 500 B. C. it does not follow that the same policy would be a panacea for present-day ills. And the fact that a certain policy is a blessing in some other country is no guaranty that it will be a blessing to China. Changed conditions demand new treatment, while borrowed remedies are only applicable in so far as the conditions are similar.

The teachings of our sages cannot alone solve our modern problems, for conditions are now different from what they were in their time. But they were, however, the authorities for the periods in which they lived and worked, insofar as they were able to analyze and meet the conditions of their age.

The first step in a real solution of our economic problems is to seek a thorough understanding of them and this can be done only by finding their causes, tracing their development and noting the policies applied and their results. We must search the old records for data, but the facts thus ascertained can be valuable only as we interpret them in the light of modern science.

This historical study of Chinese agriculture is the result of the author's attempt to execute the foregoing plan. It is therefore the policies tried from time to time as well as the agricultural problem itself that this dissertation aims to review.

The author is indebted to the Department of Economics of Columbia University, under which she received her instruction in economics; and to Professor Edwin R. A. Seligman for his guidance and encouragement.

She wishes here also to make grateful acknowledgment to Professor Henry R. Seager for his kind interest and help in preparing this dissertation for publication. He has been untiring in supervising its every phase, contributing invaluable suggestions and personally correcting all the manuscript and proof sheets. She desires to thank Professor Henry L. Moore for suggestions as to the proper use of statistics and Professor and Mrs. W. E. Weld for help in correcting the manuscript.

Through the courtesy of Professor O. S. Morgan, head of the Department of Agriculture at Columbia University,

and of Professor William E. Shepherd of the Department of History, who read the manuscript in galley, the author had the benefit of suggestions from the agricultural and historical point of view.

Her profound thanks are due Professor Vladimir G. Simkhovitch whose inspiration and encouragement have contributed in such large measure to make this study possible.

MABEL PING-HUA LEE.

COLUMBIA UNIVERSITY, MAY, 1921.

PART I
HISTORY

CHAPTER I

Introduction

Ancient Chinese history dealt with emperors and dynasties. Modern Chinese history is mainly concerned with foreign relations, revolutions, and civil strife. Up to 1911, when she surprised the world by overthrowing her Manchu rulers, China was considered a country where hardly anything unexpected could happen. The Chinese always walked in the way of their ancestors, and the very word Chinese was itself the synonym of conservatism and unchangeability.

But since 1911 various events have happened in China so rapidly, and in such quick succession, that the world now wonders when changes will cease. Thus, even as this work is written, American business men are heard daily asking this and that authority if there is "anything stable" in China.

This state of wonderment is natural on the part of observers on this side of the ocean. However, if one goes to China, he will find the country still there, and the people not running around wild, with knives cutting one another's throats; but plying their trades, tilling the soil, or otherwise peacefully earning their livelihood. He will find that political storms are things that blow over and that through them all Chinese industry is intact and undisturbed. The world war had no effect on the Chinese masses except perhaps as a very mild stimulant. China's contribution to the Allies was in men (about 180,000 were sent to Europe) and her industries did not suffer from having to shift to production of war supplies and then revert again to normal peace-

time production after the armistice. So one can say that the industries in China to-day are in a very favorable position, even more favorable than before the war.

Gradually this news is being spread, and foreign business interests are now rapidly going into the country, anxious to develop the new field there. The business interests are right. The peaceful condition of people in industry in a country is the best indication and guaranty of stability. For after all, all political, all international questions deal with the welfare of peoples. How then can we learn to know a people better than by a study of their daily economic life?

We have mentioned the favorable position of Chinese industry which has stimulated the investment of foreign capital. But the observation is a very unsatisfying one, in that it merely bridges the period since the Chinese revolution. The economic history of the Chinese people is practically unknown. As a result present economic China is an enigma to Western economists, and is often referred to as an exception in discussions of economic laws and developments.

We cannot be content to let the enigma remain unsolved. We must find out the actual condition of the people, and if the masses have been indifferent to the political storms that have blown over them, let us know why they were so. Unprecedented events are happening all over the world to-day and the situation in Russia alone should be enough to teach us that the masses are indeed to be considered, and considered before it is too late. A country cannot move forward and leave its people behind. Political revolutions are over, we fervently hope. But an economic revolution is coming to China. It is bound to come, and when it does it will have a tremendous effect on the tillers of the soil. For brought, as she now is, into contact with Western countries and their material development, China must adapt her economic con-

ditions to those of the world about her—must "get in line" in order to be able to live. Machinery must come, and even now is on the way, and with it factories, mines, and large scale production. The masses will not be unconcerned, for the forces of reconstruction will be recruited from the farms and village communities. A readjustment must be made. But how? What will be the consequent condition of agriculture, of the farmers, and of the new industrial army which will be called into being? The government of the country may be faced with a food problem and a labor problem. It cannot afford to be unprepared.

No one can predict the future, hence no one can know how the Chinese masses may act. But the future is nevertheless the child of to-day and yesterday, and the closest approximation to a prophecy will result from a study of how the Chinese masses have acted in the past in response to various conditions.

The present economic condition of China may be briefly described as follows: China proper, that is her twenty-one provinces, exclusive of Manchuria, Mongolia, Thibet and Turkestan, is a country of 1,896,436 square miles, with a population of 331,188,000, making an average of 175 per square mile. Thus at first glance she is not a densely populated country since Belgium has an average of 652 persons to a square mile, Holland 483, and even France 189. But this average is not a true one inasmuch as the population of China is not evenly distributed, but mostly concentrated in the principal provinces. Thus we find that the average density for the province of Shantung is 528, Chehkiang 463, Kiangsu 448, Honan 376, Hupeh 348, Anhwei 315, Fukien 282, Hunan 282, Chili 281, Kwangtung 277; all these respective averages again being lower than in the densest sections of each province.[1]

[1] Bashford, J. W., *China*, The Abingdon Press, New York, 1919, pp. 18, 19.

And this dense population depends almost entirely upon agriculture and hand-manufacturing for its maintenance—for although factories run by machinery have been established, and are bound to increase, their number at present is still too negligible to be considered in this discussion.

There are no statistics available for a comparison of the rural and urban population, but travelers in China are continually impressed with the incredibly large number of Chinese living outside the great centers of urban population. In India, three-fourths of the population is rural, and there is no reason for thinking the proportion to be any less in China. Further evidence may be had in the amount of land susceptible of cultivation. There are the Yangtze Basin with some 570,000 square miles and the Yellow River and West River Basins of probably 500,000 square miles—not to speak of terraced hillsides and other spots in the less fertile nooks and corners.

China is mainly an agricultural country and the majority of her people are farmers. An idea of its nature may be had through a comparison with the United States which is also an agricultural country with the number of her farm population not only leading all other industrial groups, but equal to one-half the number engaged in all the other pursuits combined. The average yield for the wheat crop in the United States is 15 bushels per acre; but in China the average yield of wheat and of rice per acre is about 25 bushels. And besides this one crop of wheat the Chinese fields are also used to produce other crops sowed in between the wheat crop before the wheat is harvested and thus gaining that much time on the land. Moreover, in central and south China there are large amounts of rape, winter wheat, barley, beans, etc., produced for winter crops. Succession and intercropping are practised so that several crops may be had during the year. Thus the crop

and annual yields per acre in China are much larger than those in the United States, yet, in spite of this fact, the yield per man is much smaller in China than in this country.

To study the agricultural situation of China is to study her economic condition because agriculture is there the dominant and paramount industry.

Agriculture in China is intensive; land is dear and labor cheap. The yield of the land is as high as any in the world. Holdings are very small, each family cultivating small plots of its own, a family of 10 or 12 (including grandparents because of the Chinese family organization) working two or three acres. In 1902 the island of Chungming had 3700 persons per square mile; and this is rural population, for although the island has an area of 270 square miles there is but one fair-sized city on it.

The farming population of China is mainly congregated in village communities similar to those still seen in parts of India and Russia. These villages vary in size from 50 to 2000 families with the dwellings grouped along one or more streets.

The fields radiate from the village as a centre in all directions. They present a uniform appearance because in a restricted area the same crops are being grown at the same time. On closer observation, the fields present the appearance of a checkerboard with square plots divided from one another by ridges of turf or unploughed land, very narrow and slightly higher than the fields so that they merely serve the purpose of demarcation.

The ownership too is similar to the arrangements found in European village communities in that an individual's holding may consist of several plots or portions of plots scattered all over this cultivated area. The only difference is that we do not find the land in numerous narrow strips—this difference being accounted for probably by the almost standard

measurement of Chinese fields. Thus a man may own one-third of a field or one-fourth of it, without the necessity of having it ridged. Although sheep and cattle, horses and deer, and various other animals are mentioned as early as 1100 B. C. in Chinese history (Chow Period) and the use of animal manure for fertilization was known, sheep and cattle are comparatively rare in China proper, except in districts adjoining the treaty ports, and have always been so. The water buffalo is kept because it draws the plow and the horse here and there serves as a beast of burden; but aside from these, swine are the only animals which are common because they will thrive in confinement, that is, will live without pasture.

Farm lands in China are handed down from father to son, or bought and sold by the inhabitants of the village; family pride and communal unity keeping the land from going into outside hands as long as possible. For instance, if a poor man is forced to sell his holding, another villager who can afford it will buy the land, or if no one villager can, then several may combine to do so as a matter of village pride and unity. The amount of tillable soil varies in proportion to the size of the village. Yet even in a small area there is the distinction between rich and poor fields. Even in small-villages of 50 or 100 families—a man will speak of buying a poor field or a rich field. One would think that these holdings being within such a small area could not vary much. But every inhabitant in the village community knows the land very definitely—the poor fields and the good ones, and their established yields. If one goes to any farm village and asks of any of its inhabitants, he can be told exactly the order of the plots of land with respect to their yield and fertility —for they are well known facts.

But Chinese farm land is the most productive in the world; its yields excite the imagination and Chinese farmers are

known for their superior skill, economy, and industry. For instance, this fact impressed Professor F. H. King,[1] an expert agriculturist, in his visits to China: that it is possible, after 20 and perhaps 30 or even 40 centuries for the soils to produce sufficiently for the maintenance of such dense populations as are now living in the country. For nearly 500,000,000 people are being maintained chiefly upon the products of an area smaller than the improved farm lands of the United States. This statement includes Korea and Japan, as the agricultural condition is similar in all the three countries, and Professor King was speaking of them together. And he adds,

> Almost every day we were instructed, surprised and amazed at the conditions and practices which confronted us whichever way we turned; instructed in the ways and extent to which these nations for centuries have been and are conserving and utilizing their natural resources, surprised at the magnitude of the returns they are getting from the fields, and amazed at the amount of efficient human labor cheerfully given for a daily wage of five cents and their food, or for fifteen cents, U. S. currency, without food.

Professor King found in his observations at random (calculating from the density of population on the farm holdings) that those lands had a maintenance capacity of 1783 people, 212 cattle or donkeys, and 399 swine—making 1995 consumers and 399 rough food transformers per square mile in comparison with that in the United States in 1900 of 61 consumers, 30 horses and mules per square mile of improved farm land.

And not only is this unusual condition in China everywhere known and acknowledged; but even the causes for

[1] King, F. H., *Farmers of Forty Centuries*, Madison, Wisconsin, 1911, p. 2.

the same are pretty well agreed to in books descriptive of China by Western writers. We are told of

the exceptionally favorable geographic position and salubrity of climate—Canton in the extreme south of China having the latitude of Havana, Cuba; while Mukden in Manchuria is only as far north as New York City. . . . The United States lies principally between 30 and 50 degrees north latitude while China lies between 20 and 40 degrees, making her some 700 miles further south. This in turn gives longer seasons, thus accounting for the possibility of growing two, three, or four crops on the same piece of ground each year. Further, the rainfall in China is not only larger than even that in the Atlantic and Gulf States but it falls more exclusively during the summer season when its efficiency in crop production may be the highest. Then added to these favors of nature the immense system of canalization and irrigation, the selection of crops, the intensive systems of fertilization and the untiring energy of the individual farmers are the factors which have made the maintenance efficiency possible.[1]

But how can this description square with our statement that fields are labeled as rich or poor and thus handed down from father to son, as though their fertility could not be improved?

It may here be judicious to ask one question before proceeding further. What do the writers on Chinese agricultural conditions say about the economic condition of China's farmers? Are they rich and prosperous with their large yields and untiring energy?

One statement also quoted from Professor King is enough, for the answer is already too familiar to need further substantiation:

But above any other factor, and perhaps greater than all of them combined in contributing to the high maintenance efficiency attained in these countries, must be placed the standard of living

[1] King, *op. cit.*, "Introduction."

to which the industrial classes have been compelled to adjust themselves, combined with their remarkable industry and with the most intense economy they practise along every line of effort and living.[1]

Yes, China's soil is maintaining her 400 millions, but in a desperate way. Every device known has been drawn to its aid, and with all the lavish favors of climate and position, and time and labor spent in cultivation, it still is barely able to give the farmers an existence. In spite of their unexcelled skill, unquestioned frugality, industrious nature and hard-working capacity, Chinese farmers have not enough land to eke out a bare living. They are desperately poor, debt-ridden and threatened with chronic starvation. China is indeed the "special home of hunger."

What then is the cause of this seemingly paradoxical situation. Unusually large yields, unexcelled farmers, but not enough to eat. The crying need seems to be more land—and more land as the only solution.

The need for more land may imply either of two things or both of them: namely, more fertilization on original acreage for still larger yields, or opening and reclaiming lands not used for agricultural purposes. There is undoubtedly much acreage under cultivation the yield of which is not all that could be desired as indicated by the distinction between good and poor fields in the village communities—and as shown by the statistics of density of rural population—being as high as 1995 per square mile in the sections of good farm holdings, when the highest provincial average is only 528—and by the congested population in fertile spots. Our present agricultural conditions are much the same as those in Japan and Korea before their modernization.[2] The average

[1] King, *op. cit.*, p. 13.

[2] C. L. Wing, "Chemical Engineering and China," *Chinese Students Monthly*, May, 1918, vol. xiii, no. 7.

Japanese crop to-day is exactly one-third larger than that of twenty years ago. The Korean rice crop has increased by 58 per cent during the seven years since Japanese annexation. Under improved methods of modern agriculture China proper alone can undoubtedly provide her vast population with the necessary means of sustenance.

Among the various factors contributing to good farming, the use of good fertilizers is of greater value than all the others combined. The Belgian, French, and English experimental stations, in response to letters written them asking how they explain the practical doubling of the crop in the last forty years, replied that although giving to tillage a certain proportion and to better seed selection a certain proportion, 50-75 per cent of the increase was due to intensified use of fertilizers.[1] And the applicability of the explanation to China may be seen from the results in Japan from the use of commercial fertilizers.

Manifestly, China's lands are now subject to the law of diminishing returns. She has no fertilizer other than a limited quantity of "night soil" and animal manures, besides of course green manures and the alluvial deposits, and though she applies her fertilizers in the most intensive fashion, yet they are not enough to leave a surplus in the land after one year's crops have been taken from it. How long have her lands been in that condition? Why is it that the small holdings persist instead of all having been turned into the large estates of rich owners? While the village community as described is universal throughout China there are also some enclosed farms whose owners live amidst their fields.

One can understand the existence of estate holdings, as resulting from the tendency to latifundia, but why do we

[1] Charles H. McDowell, "American Research Methods," *Journal of the Western Society of Engineers.*

find these in the very same localities as the village communities and both boasting of time-honored existence so that we are at a loss to know which is the older?

The majority of farmers still own their individual small holdings, yet side by side are large estates worked by hired labor, the owners usually living in some nearby city. Thus in most parts of China there are villages of the kind described but in the same localities there are also isolated farm houses, each surrounded by extensive fields, usually owned by a family of sufficient holding to live rather independently of the rest of the village community.

The present existence of village community arrangements may be accounted for as resulting from soil exhaustion,[1] thus making comprehensible the tendency to estates or latifundia. And we can understand the reason for the small enclosed farms in the exceptionally fertile spots as river deltas or dust-storm regions.

However the age question would still have to be solved. How long has Chinese soil been in this condition—for both the village communities and the isolated farms have evidently existed for a very long time—and why should the small individual holdings persist to this very day? All the elaborate schemes of irrigation, mud and soil fertilization, selection of crops, etc., are not recent applications but century-old practices. How could soil already showing such signs of depletion as to make the present practices necessary, last for several centuries and still be in its present condition?

Fortunately Chinese history is very full of its agricultural records and here comes to our assistance. It shows that the history of land in China is not a mystery—but exactly the same as that of land elsewhere. When used in agriculture,

[1] According to the theory of Professor Simkhovitch as expressed in his "Hay and History" (*Political Science Quarterly*, vol. 28, p. 385, September, 1913).

especially intensive agriculture, land is sharply subject to the law of diminishing returns—and the agricultural history of China is a continual reflection of the working of the law and of counter-acting influences which explains the long existence of village communities, latifundia and intensive agricultural practices.

In studying the history of Chinese agriculture I have endeavored to give special consideration to three principal topics in the expectation that the general tendencies of each may be found to dovetail into the story of a definite tendency or movement. These topics are: (1) Population and Amount of Cultivated Land; (2) Size of Land Holdings; and (3) Yields or Returns of the Land.

Unfortunately, for all these topics alike and also for the resultant of them combined, the data were found to be irregular and indicative of many small movements and resultant tendencies within the general trend, so that no interpretation of them could be had except on the basis of full knowledge of Chinese history with all of its complexities.[1]

Thus the whole history of Chinese agricultural life is here studied, and the study is an exhaustive one in that everything in the Chinese Encyclopedia is used as well as the other references in the bibiliography on the subject.

[1] For convenience of reference, the summaries of the special topics are placed in Part III, together with a study of the history of weights and measures, which information was found necessary for the correct understanding of the data in the various periods of Chinese history.

CHAPTER II

Classical Period, 2737—207 B. C.

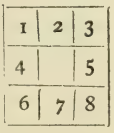
Agriculture was to the Chinese even in prehistoric times a matter of such concern that it was an object of special legislation and official solicitude. The history of agriculture in China is the history of Chinese agricultural administration, and the story of the various changes of policy is the story of the varying productivity of the soil.

The whole history of the government administration of agriculture in China coincides with the history of the Tsing Tien System, for it started with this system of land tenure. Its vicissitudes, its crises and epochs were timed by the abolition or reestablishment of the system.

TSING TIEN SYSTEM

What then was the Tsing Tien System? Ponderous tomes have been written upon the subject and various attributes have been given it by various writers. It was the system of the sages; the system whose chief aim was popular cooperation; the political system of administration; the system of taxation in the ancient period, etc. Whatever attributes or designations should be given it will be left to the individual readers, for we are only concerned with the facts as they transpired from time to time.

Tsing Tien 井田 means fields laid out like the character tsing 井. For each tsing consisted of a square divided into nine plots. To eight families were assigned the eight exterior plots, and the center plot was reserved to be worked in common. The word tsing also denotes a well, for within the limits of each tsing four roads were opened and a well dug in the center.



The tsing unit was also known as 1 Lin (neighborhood)

3 Lins = 1 Pung (friendship)

3 Pungs = 1 Li (village)

This li also stands for 1 Chinese mile, and had the same meaning originally, for 1 square Li contained 900 mows, or 3 Pungs according to the ancient table of measurements.

5 Lis = 1 Yi (district or town)

10 Yis = 1 Tu (county or center)

10 Tus = 1 Shih or Sze (prefecture)

10 Shihs = 1 Chow (state or province)

"The territory was reckoned as states (chows) and all divided into tsings."

The advantages of the system were thus enumerated: 1. Saving of expense; 2. Unifying of customs; 3. Improved production; 4. Easy exchange of commodities; 5. Mutual protection; 6. Close social relations; 7. General cooperation.

The significance of the Tsing Tien organization as a social system is readily discerned and understood; as well as its significance as a system of taxation in that the center lot of each tsing was cultivated in common by the adjoining landholders for the government as a tax.

However, the important thing to us is that the Tsing Tien was a system of land tenure and land distribution. Land was distributed to families in groups of eight and was practically rented from the government, rent being paid by labor on the central plot with reversion to the government on death or disability.

As China started out with the Tsing Tien System we may say that she started out with equal land distribution among all her people. This gives us a key to the situation and no small advantage in our study of the later developments.

Of course, as it is hardly necessary to state, the Tsing Tien was not a system perfect in its inception and adopted all at once during a certain period. Like all long-lived institutions it had to grow and develop as well as flourish and decay. It is fortunate for the economic historian that the history of the Tsing Tien System is coincident with China's political history so that the story of Chinese agriculture may be easily traced.

SHONNUNG, 2737 B. C.

Agriculture in China is recorded as beginning with Shonnung (2737 B. C.), the ruler to whom is credited the teaching of farming to the Chinese people. Before his time, the people were roaming tribes still in the nomadic stage, subsisting on the fruits of the chase; and it was with the advent of Shonnung that they took up fixed habitations. But, as we all know, economic developments are gradual growths; and thus could not have come through the teaching of one individual. The probability is that Shonnung, being the ruler under whom was found established agricultural life, had conferred on him by the early historians the posthumous title of Shonnung (literally translated, "divine farmer") and gave him credit for all the progress prior to and during his reign. It is written that "he cleared the fields, taught the universe (Chinese term for all known parts of China and the surrounding tribes) the sowing of crops and the planting of melons, and saved the people from the hardships of the chase." That from his time

> they began to have sufficient food and drink, getting provisions from grains. Also the people were taught the uses of hemp and the mulberry tree, and the making of cotton and silk. Cheh Tsi was ordered to invent rice threshers, to make various implements for cultivation, and to dig wells and make stoves for the people.

Under Shonnung agricultural life may be said to have been

fairly well established, although everything was in a very crude stage. For various cereals and herbs had their experimental planting, the few implements mentioned were fashioned of wood,[1] and the people were first taught the use of the plow and the lo (a weed-cutting instrument).

HUANGTI, 2698 B. C.

With this setting the drama of Chinese history may be said to open with Huangti, the Yellow Emperor, who in 2698 B. C. consolidated his authority by military triumphs and is regarded as the founder of the empire.

Many important improvements in agriculture are recorded in the reign of Huangti. The system of weights and measures was rearranged (decimally); the pu and mow (Chinese foot and acre) were established; and the Chinese calendar was regulated (cycle every sixty years). Shonnung's work was thus improved upon because the year was divided into four seasons and time was determined for sowing and planting. Huangti ordered his consort to teach the people the raising of silk worms from which time the industry was raised to the dignity and importance which it has always retained among the Chinese to the present day. The invention of writing is also ascribed to this period together with the manufacture of silk, the making of bows and arrows, the building of houses and the invention of agricultural implements.

And it is during Huangti's administration that the Tsing Tien System had its beginning. "Huangti marked the country and divided it into states, established kingdoms of 100 li square to the number of 10 thousand, ordered the people to establish the districts within these kingdoms, measuring the land and establishing the tsings in order to prevent

[1] This is inferred from the formation of the characters representing those implements.

disputes and for purposes of land and soil administration." So we have the division into tsings and the emerging of the Tsing Tien System—not due to divine sanction or any mysterious reason but to the needs of the hour—an equitable system of land holdings with definite demarcations to prevent disputes.

As the roaming tribes became settled we can easily imagine that they did not do so each individual in a lone spot by himself, away from the tribe; but that they were grouped together and lived with their kinsmen and clan. Hence the question of land ownership would be a tribal or communal one. And though at first land being plentiful had little value, it would become more and more valuable as time went on and agricultural knowledge and skill increased. Disputes and quarrels over landmarks arose and what could be more natural than to have the governing authority devise a system of land distribution for administration purposes?

It may be noted in passing that with the Tsing Tien is also said to be laid the beginning of the feudal system in China, because various feudal lords (rulers of the kingdoms established by Huangti) added to their holdings by conquest and their states gradually gained importance and strength bringing about the period of warring states at the end of the Chow dynasty.

YAO, SHUN, HSIA AND YIN DYNASTIES

Records concerning land tenure are very brief in the periods immediately following Huangti, but agricultural China was developing rapidly and we can assume that the Tsing Tien System was gradually extended and elaborated for we may be sure that such a system involving changes in measurement of holdings, construction of roads, etc., could not be completed in a day.

These periods following Huangti were Yao (2357-2261

B. C.); Shun (2255-2205); Hsia Dynasty (2205-1766) and Shang or Yin Dynasty (1766-1122).

At the time of Yao the empire was suffering from a great flood (suggested by Western writers to be indentical with Noah's flood) and so the energies of the officials were directed to coping with the dangers and the restoration of agriculture after the waters had subsided. The making of canals, connecting the ditches in the fields with the rivers, and the deepening of the rivers for the purpose of drainage at this time inaugurated the immense systems of canals found in present-day China. The appointment of Hou Chi as a special officer to look after the production of food at this time is noteworthy. He was doubtless the world's first minister of agriculture. "People were hungry, food must be raised in season, and so Hou Chi was ordered to see to the restoration of the planting of 100 crops" and he proved his worth by his many works. We are told that Hou Chi was a real "dirt" farmer, having taken to farm work since childhood, and his appointment was the result of accounts of his success reaching the ears of the emperor.

To him is credited the invention of the system of "alternating fields," a system of alternating high and low lines in the field for the annual rest and recovery of the soil.[1] Also the cultivation in pairs. The Shi King says "attend to your cultivation with your ten thousand men, all in pairs" and "in thousands of pairs they remove the roots."

Yu, who as minister of public works cooperated with Hou Chi, not only drained the rivers and dug ditches for drainage, but also classified the land of the nine states or provinces for the guidance of the tillers of the soil and for convenience

[1] We know too little of the details of this system to judge of its merits. Of course we know that proper cultivation, not allowing land to lie fallow, is the best means of restoring its fertility, but the fallow system of which this may have been an example, is easier to adopt where land is superabundant, as it then was in China.

in levying taxes—thus taking a decided step in agricultural progress and fiscal administration. The classification was as follows:

1. Ki Chow (Chili)	Soils: white and soft	Fields: 5th	class
2. Yen Chow (Shantung)	black and loose	6th	"
3. Tsing Chow (Shantung)	white and loose	3rd	"
4. Sü Chow (N. Kiangsu)	red and loose	2nd	"
5. Yang Chow (Kiangsu)	muddy	9th	"
6. King Chow (Hupeh)	muddy	8th	"
7. Yü Chow (Honan)	soft and loose	4th	"
8. Liang Chow (Szechuen)	dark blue	7th	"
9. Yung Chow (Shensi)	yellow and soft	1st	"

According to Do Yu Tung Din: Cultivated land of these nine states aggregated 9,108,020 Twing (100 mows make 1 Twing).

It should be added in discussing the time of Yao and Shun that this period is considered the golden period of Chinese history by the native historians in that it is characterized as that of a model government based on solicitude and a feeling of responsibility for the true interests of the people. Thus Yao is recorded as saying: " Are the people cold? It is I who am the cause. Are they hungry? It is my fault. Do they commit crime? I ought to consider myself the culprit." Moreover the custom of hereditary succession was set aside at that time and the man chosen as the emperor's successor was one long associated with him in his adminstration and deemed best fitted to be intrusted with the office, instead of the eldest son of the ruler.

Thus Shun was chosn by Yao after 28 years association; and Yu in turn was chosen by Shun to aid him in his work and afterwards to succeed him upon his death. The three emperors carried out the same policies in their administrations, which spanned China's Golden Age.

Thus in this period we see unhampered economic developments arising from the needs of the time. There was no interruption due to war or to various other causes—a condition which can not be said to have existed in any succeeding period.

With the death of Yu this prosperous patriarchial period is said to have reached its close. The principle of hereditary succession was firmly established. Yu being succeeded by his son became the founder of the Hsia Dynasty, which lasted four centuries.

HSIA DYNASTY, 2205-1766 B. C.

Its emperors paid little attention to administrative matters, devoting themselves to sensual pleasures and riotous living, thus giving opportunity for the aggrandizement of the vassal states. The overthrow of the Hsia Dynasty resulted from a combination of the great feudal lords, whose leader established the Yin Dynasty in 1776 B. C.

YIN DYNASTY (SHANG), 1766-1122 B. C.

One is not told of the duration or extent of this war for the overthrow of the Hsias, but it may be assumed to have been limited as it would be confined mostly to the area of the state of Hsia—the imperial domain. Still conditions in the revolting states must have been affected by the loss of men taken from economic pursuits.

However, this political disturbance was followed by a great dearth with seven years of drought in the first reign of the dynasty (curiously, as pointed out by Western historians, coinciding with the date of the famine in Egypt in the days of Joseph and the Pharoahs), which conditions of famine were remedied by the measures of the emperor and his prime minister, Yi Yen,[1] who invented Chu Tien, or the system of

[1] Chinese literature is full of references to Yi Yen and his conquest of the drought. He is usually mentioned together with Great Yu, who relieved the distress resulting from the nine-year flood, Yi Yen relieving the hardships of the seven-year drought by the invention of the system of Chu Tien.

We know that all the famines in Chinese history have been attributed to the following causes: flood, drought, worms and rebellions. Worms

stripping land so as to retain and preserve the moisture in the soil. There are also reported vagaries of the Hoangho River about 1400 B. C., but they could not have been serious as the only consequence mentioned was the moving of the capital or residence of the court. The country as a whole was quiet until 1100 B. C. when the overthrow of the Yin Dynasty was brought about by the Prince of Chow. However, this occasioned little bloodshed, the fighting being confined to Honan, where Wou Wang, the Prince of Chow, led his army from across the Hoangho, and routed the imperial forces.

Although history is brief on the agricultural progress of the Hsia and Yin Dynasties, we must not forget that the Tsing Tien System must have been progressing throughout their time in order to have reached the high development we find in the Chow period. Thus an emperor in the Shang Period is recorded as adopting the Tsing Tien System and we find Mencius telling of the Hsia government alloting 50 acres per man, for which the produce of five acres was paid as a tax; the Yin government allotting 70 acres per man, on which was paid the produce of seven acres, and the Chow government alloting 100 acres and receiving the produce of 10 acres, etc. (This does not necessarily mean a change in the size of the allotments, however, owing to variations in units of measurement.)

and rebellions, however, are only infrequent, whereas flood and drought are frequently given as recurring causes. Hence, the Chinese famines are normally attributed to flood or drought, that is, to too much or too little water.

Chinese writers of later periods are always citing Great Yu and Yi Yen for having relieved conditions of flood and drought and asking why it is that in their own days the same conditions cannot be similarly remedied. Their one answer is that in the time of Great Yu and Yi Yen there was a surplus supply left for such emergencies, whereas in later periods there was no such surplus.

There was general development in agricultural methods as well as the invention of the Chu Tien system. This point is illustrated in the careful detailed monthly bulletins preserved to us in the Li Ki or Records of Rites:

Beginning of Spring:

Inspection by officers of mountains, slopes and plains to determine the adaptability of soils to each of 5 kinds of crops.

Middle Spring:

Farmers are busy in plowing and seldom stay at home.

Last of Spring:

Silkworm culture almost completed.

Beginning of Summer:

Farmers harvest their wheat. The work of the silkworm is finished.

Middle of summer:

Farmers harvest millet.

End of Summer:

Moisture is abundant, soils are wet and weather damp and hot—often heavy rains. Best method for killing weeds is by burning above ground and allowing rain to fall on them. This acts as fertilizer for enriching the soil.

Beginning of Autumn:

Farmers harvest rice.

Middle of Autumn:

Dogs are used for testing hemp. It is the season for it to ripen. People are ordered to raise vegetables to make up the insufficiency of the rice (grain) crop. At this time people are urged to plant wheat and not to be behind the season. Those missing the season will suffer punishment.

End of Autumn:

Dogs are used to test the rice crop.

End of Winter:

Exhibition of seeds of the five kinds of crops by the people. Farmers are ordered to figure out the labor put into plowing and to repair their plows and other farming implements.

CHOW DYNASTY, 1122-256 B. C.

With the Chow period is witnessed the maturity of ancient Chinese civilization and also the maturity of the Tsing Tien System.

Thus we find that in the distribution of land new methods had been adopted. Land was granted only on the condition that the party receiving the same should make use of it; any person or family receiving land and failing to cultivate it was liable to double or treble the normal taxation. Also cognizance was taken of the quality of land, which was graded according to fertility.

Instead of assigning to each family an equal amount of land without regard to its fertility, the distribution of land was made according to quality and the size of the family. Moreover, the tax in kind was proportioned to the fertility of the soil. Thus in the distribution of land in the neighborhood of cities, each family was allotted 100 acres of the best land that could be cultivated every year, or 200 acres second class land cultivated every other year, or 300 acres of third class land cultivated every third year. In the rural districts the laws were more favorable than in urban districts, the object being to draw the population to the farms. Hence we find that a married man received a home site of five acres plus 100 acres of cultivated land and 50 acres ordinary fallow land. This allotment was increased to two or three times the size if the land was of poor quality. Also in the country districts each supernumary male in the family received 25 acres of superior fallow land.

Naturally, since foreign trade was a negligible quantity, agriculture was by far the most important source of national wealth. Among the nine occupations in which people were listed at that time, almost all may be classed under farming. And although people might be laborers, artisans or merchants, they were also farmers in that every one had to work more or less on farms and was a part of the Tsing Tien System.

The people held estates as tenants of the princes in charge of their particular local units, the Tsing Tien having been elaborated in its administration into a sort of feudal system in the course of time.

Nor did the government fail to recognize the prime importance of agriculture to the empire, for it took every possible means for its improvement and encouragement. The Minister of Agriculture was a member of the Cabinet of six. Under him were numerous officials each with his own special duties. In one department—that of irrigation, for instance —there were various subdivisions, headed by bureau chiefs whose subordinates performed the multifarious duties of farm superintendents and directors of irrigation.[1]

[1] The Chow-Li tells us that: numerous officials were appointed, whether for the establishment of fields and districts, for teaching cultivation in regard to adaptability of soils and grains, or for instruction as to seasons and implements, or for irrigation. In the irrigation department, the Si Ren and Chiang Ren had general charge, and the Dou Ren, a man of rice, charge of irrigation pertaining particularly to rice crops. His duties were further emphasized as different from those of the Tse Fang which constituted "the distinguishing of soils of the nine states and the finding of right kinds of crops to each." For rice is only adapted to Chin and Yang (Yangtze Valley), the reason being that these soils are low, damp, moist and muddy. Thus the Dou Ren took charge of the low fields.

More light is shed on the irrigation system in the further duties of the Dou Ren that "he should make use of *Chius* as reservoirs, dams for stopping water, ditches for floating water, *si* (large ditches) to distribute and equalize water, *le* to store water, and *guys* (still larger ditches) for drainage."

The use of animal manure for fertilization was understood, being taught by an officer in the department who gave instructions as to the best kind of manure for different soils, whether ox, sheep, deer or fox manures.

Aside from these provisions for the promotion of agriculture, special encouragement was given to make agriculture attractive. Thus, to the occupation was given the highest dignity; the emperor was a cultivator himself and gave expert advice to his people that was based upon his own experience. (January was the month when he published his notices to the farmers.) And there were penalties provided for disobedience. Officers enforced the rule that "only people who produce may enjoy the fruits of labor." Thus "people who do not raise animals cannot have animals for sacrifice; those who do not farm cannot have grain for sacrifice. Those who do not plant trees cannot have coffins; those who do not raise silkworms cannot wear silk; and those who do not spin cannot wear linen in mourning." "The emperor himself must plow so as to have food for sacrifice and the empress herself must raise silkworms to get clothes." Thus to legal enactments was added the religious incentive.

The vigorous administration of agriculture by the early Chow rulers resulted in contentment and prosperity in the empire. But let us not forget that history tells of the condition of the soil as well as of the wisdom of the rulers. The law requiring cultivation of alloted land was strictly enforced. Land was graded according to quality and specified as kinds which are to be cultivated every year or every other year, etc. And, besides the regular allotment, a man was purposely given 50 acres or more to keep fallow.

Wherefore the institution of such provision if not found necessary or impelled by the tendency to soil depletion? Almost 2000 years had passed since the time of Shonnung and the land, continually taxed to yield greater and greater

returns as demanded by a growing civilization, must have showed itself subject to exhaustion as needing careful management. And the situation must have been serious and urgent, for every means seems to have been resorted to for combating it.

Irrigation, we may say, was started in the time of Great Yu in the work of drainage after the flood. But there must have been urgent need of it at the beginning of the Chow Dynasty, or else it would have been neglected or abandoned as an expedient for flood drainage only, instead of being controlled by such definite regulations for maintainence and development. Irrigation was a definite part of the Tsing Tien System under the Chow Dynasty and may be regarded as an important factor in rendering the system acceptable to the people at that time, in that it provided for their needs.

Then there were also the elaborate schemes of fertilization with animal manure. Further, there was a choice of principal food crops already determined, as seen in the position given to rice (in the provision of a special irrigation officer for its care). For rice is one crop which permits utilization of not only practically the entire amount of rain which falls upon the fields but also of enormous volumes of the drainage from adjacent mountain country. It is a cereal permitting most intense fertilization and at the same time ensuring maximum yields both against flood and drought.

Hence, while we may say, on the one hand, that the vigilant and rigorous measures of the early Chow emperors produced the prosperous condition of agriculture during their time we may also say, on the other hand, that the condition of the land was such as to call forth such vigorous measures from the Chow rulers.

Thus the decay of the imperial government and the subsequent struggle[1] for supremacy among the feudal states

[1] At the beginning of the dynasty there were some 1700 states; but

were political developments having for their background land deterioration and discontent among the farmers.

History is not at variance with these conclusions. After the end of the West Chow we are plunged into a period of bad land conditions, famines and hardships suffered by the agricultural people. It is said that the Emperor Yu Wong (at the end of the West Chow Dynasty) "took away the fields from the people resulting in even the women being idle." We are given no reason for this action, but it can easily be assumed that production being insufficient to meet the taxes, farmers preferred to let their land remain idle rather than to work on it, and so their lands were taken back by the government. Accounts are many of famines at this time, and of petitions for transportation of grain for relief. This is also true of the high prices of grain and the hardships of the farmers in not being able to live and care for their families without incurring an annual deficit, not to speak of having no means to meet emergency expenses of sickness, death, or new taxes. And the special plight of the farmers in comparison with the other classes of the people is seen in Kwan Tze's statement in his chapter on Administration that "at the present time persons skillfully working on the

at the time when the capital was moved from Hao (Shensi) to Loyang (Honan) the number of vassal states had been reduced to less than 200, of which only a dozen were considered as important, the others being grouped around the larger states. Taxes were now increased in order to meet the heavy expenses of the wars waged by the rival states with only rare and short intervals of general peace. In the state of Lu (modern Shantung) we find the first departure from the traditional method of land taxation which had been followed for nearly 2000 years. In the 15th year of his rule, Duke Hsuan introduced a flat rate per mow in addition to the produce that he collected from public fields cultivated in common by the people. And the successor of the Duke went even further, for he not only maintained the increased rate introduced, but also made an attempt to separate land from "the other property of the family" and to impose on the latter a separate tax.

branch occupations (agriculture being considered the root occupation) have only to work one day to obtain provisions for five days; but on the other hand farmers who work all the year through do not earn enough provisions even to feed themselves."

Details as to the conditions of the farmers are given us by Li Ko:

> Now, one man, having five mouths in all, cultivates land of one hundred acres. He reaps annually from one acre, one bushel and a half of grain; the total amount is one hundred and fifty bushels. Subtracting fifteen bushels for the taxation of one-tenth, there remain one hundred and thirty-five bushels. For food, each person consumes one bushel and a half monthly; five persons consume ninety bushels for the whole year. There remain forty-five bushels. One bushel is worth thirty coins, the total value is one thousand three hundred fifty coins. Subtracting three hundred coins for the expense of social gathering and religious rites, there remain one thousand fifty coins. For clothing each person spends three hundred coins on the average, five persons spend one thousand five hundred for the whole year. There is a deficit of four hundred and fifty. If they are so unlucky as to have expense because of sickness or death, or extra impositions of government, such expenditure still has to be included in this account.

Panic spread over the country, and hundreds of books on the subject made their appearance over night. There were treatises written with the purpose of retaining the farmers on the land, as on the dignity and privileges of farming,—treatises and books on various improved methods of cultivation with respect to seasons, to topography, and to irrigation, in order to revive interest in agriculture, and books and treatises on methods and policies of government administration written in the hope of finding a remedy for an economic malady. Mention here need only be made of a few by the leading writers of the time:

Kuan Tze—Small Utopia (a return of the Golden Age).

Chapters on Ideals of Agriculture; on Lands; on lightness and heaviness (control of demand and supply), etc.

Yu Tze—Chapter on Cultivation of Land.

Shin Tze—Chapter on how to increase the wealth of the country.

Yu Tze—Chapter on importance of seasons (in farming); the rotation of crops, and the principle of Yin and Yang (oxygen and nitrogen).

Hwei Ngan Tze—Instructions on Topographical Conditions (with respect to agriculture).

Chiang Tze—Rules of Nature (their application in agriculture).

With the decline in agriculture the Tsing Tien System crumbled because of its inability to cope with the exigencies of the situation. The farmer with his dwindling crops was not able to support himself and remain inndependent, but gradually had to sell off his land to a more fortunate neighbor. In the case of some, physical force may have been resorted to, and the stronger may have invaded the land adjoining his to enlarge his holding and make his production adequate. This would happen only in the case of the better lands, for in those whose productivity was so low as not to be worth the labor, the only policy left was to abandon them altogether. It is true, the Tsing Tien System still officially existed; but everyone knew that it did not do so in reality. Mencius comments sadly upon the conditions of his time when he tells us in the classics that the first thing for the best government administration to do is the rectification of field boundaries. And Kuan Tze warns that "if much weedy land and little cultivated land is found in a country, even though there is no flood or drought at the time, those fields are nevertheless the causes of danger of famine. And the people suffering hunger will become scattered, and the country will be unable

to meet disasters or defend herself—and is really ruined." Also, that measures must be taken to keep the farmers from the necessity of "wandering"[1] away (i. e., deserting their fields). Nor did the feudal lords and state chiefs doubt the sagacity of this advice, as may be seen in the work of Wei Wen Hao through his prime minister Li Ko, in appointing special officers as instructors to the people in order "to utilize the strength of the soil to its fullest extent," in drawing water from the Chang River for irrigation purposes and in an attempt at relief by the establishment of the System of Pin Ti (equalization of the price of grain by the government).

Also the farmers themselves did what they could to ameliorate their own plight by united activities in reclaiming the soil, as explained in the narratives of the Chi State.

But by far the most successful was the policy of the state of Chin in digging waterways of 300 li from the King River so as to run the water of muddy land on to the depleted fields, providing river mud for fertilization. By this scheme, an area of more than 40,000 chuans was benefited, and the harvest of each mow was one Chung (six and four-tenths loads). The former depleted condition of the soil as well

[1] The Chinese word rendered "wandering away" is a significant term, for the farmer had every tie to keep him from doing so unless pressed by the utmost necessity. His grant of land on which he lived and worked was home to him in every sense of the word. It was not only his home, but the home of his ancestors for generations. And not only his own direct ancestors were associated with the place, but all his kinsmen and relatives had lived there, and their descendants were now his neighbors and partners. It was not only a home to which he came back from the outside world; but his very world itself in that it was his work and the means of his livelihood. Every spot of it was known and loved since childhood, and he seemed to be intimately a part of it. Compared with it, the outside world was strange, unknown and foreboding; a place to which he had never ventured nor thought of venturing. Hence one can understand that hunger alone could force him to forsake his fields.

as the success of this treatment may be seen by noting the figure given for Wei Le Wong's time, each mow yielding one and a half load. (Both these figures come from the Han Book, one from the chapter on Ditches, and the other from the chapter on Food and Commodities.) Hence Kwan Chung (Shensi) became fertile and did not suffer from famine, the State of Chin (Shensi) became rich and powerful.

But the general conditions were such that although various measures relieved conditions here and there, or arrested the disastrous development for a time, a new economic order had come. Farmers had been forced to give up or desert their lands and "wander away": some to be absorbed in other occupations, others according to Han Fie Tze (a contemporaneous writer) "to sell their labor to others and cultivate farms for them," and we may presume that the poor sold themselves to the rich in order to maintain their existence. The Tsing Tien System, an economic and political institution, had served its purpose and was no longer suited to the conditions. It was bound to decay. Its existence though still on record was merely nominal,[1] and all the urgings of Mencius and other patriotic writers could not revitalize it. The fields could no longer be defined by its borders and boundaries, and its entire abolishment was but a matter of time.

This was finally accomplished in 350 B. C. by Shong Yang, minister of Chin State, which state had been able to main-

[1] According to the Tsing Tien, each family was granted equal holdings (although not equal in size they were equal when quality was taken into consideration) and these holdings were marked by definite boundaries, wide roads, etc. This equality could not be maintained in that the poor left their land or had it taken away from them by the government when they left it to work for the rich. Then the land used as the boundaries of the Tsing Tien could not be kept, as they formed the most fertile of the land grants, being the parts not exhausted.

tain its soil fertily by means of alluvial fertilization (see preceding page) and was therefore rich and prosperous. The minister issued an edict inviting the people of the poor neighboring states to come and settle within his State, offering to them attractive farms and homes. He opened up the Tsing boundaries for cultivation, and permitted the people to take as much land as they wished. Through this measure the Chin State already rich, increased her population and attained such predominance that she was later able to conquer the whole empire; but it is also significant that with this same edict Shong Yang accomplished the destruction of the Tsing Tien, and ushered in the era of private ownership of land. So went the Tsing Tien as it had come—by a political edict apparently, but in reality through the pressure of the economic conditions of the times. And thus it is with all institutions; they rise to fulfil a felt need and last as long as they fulfil their purposes. But once the need is gone, they are doomed to decay, though they may for a time outlive their usefulness.

CHIN, 246-202 B. C.

We have seen the agricultural conditions in the latter part of the Chow Dynasty and how the State of Chin above all the others seemed to grasp the situation and was able to master it. The point to remember is that she restored her land by alluvial fertilization.

Her extensive territory was sparsely peopled and she needed workers on the farm as well as soldiers for the army. Having rendered her lands fertile, she invited the people from the neighboring countries to settle within her borders, abolishing the Tsing Tien System and allowing settlers as much land as they could cultivate. Her own people she was able to use in the army on the frontiers.

Nor was her watchful care of soil conditions relaxed with

the success of this policy, for even on the eve of her conquest of the other states, she embarked on an irrigation project by drawing water from the King River (a distance of 300 li) into the fields, with the consequence, according to the records, that throughout Kwan Chung (Chin State—present Shensi) there were no more bad years.

The empire under the Chin Dynasty received the same treatment as Chin State had under its provincial government. The abolishment of the Tsing Tien was extended throughout the empire. Land could now be bought and sold.

The Chin Dynasty was progressive, radically so. It shook off the fetters of scholasticism and hoary traditions and aimed at practical achievement.

Having subdued all his ambitious rivals and made the conquest of China complete, the ruler of Chin divided the country into 36 provinces and appointed officials to rule over them, very much like the Persian satraps.

Having consolidated his power, the victorious monarch went forth to make it felt beyond the country's borders. His generals brought about the annexation of Tonquin and Cochin China in the south. They spread the terror of their arms into the Kingdoms of Ava and Bengal, and made the town, Hanil, the watch tower for China in central Asia.

As a defensive measure, the Great Wall of China was built like a dyke to check the Tartar inundation from the north.

The Chin regime was the builder of good roads, believing that roads should be made in all directions through the empire.

Thus the Chin Dynasty lasting barely forty years has a record of some of China's greatest accomplishments. The Great Wall, a wonder of the world to-day, would have been enough to distinguish it without considering its conquests abroad and its economic and administrative achievements at home.

Chin Chi Huangti (meaning the first Chin emperor) as a projector of vast undertakings was a breaker of precedents. He decreed the burning of all Confucian books and the burying alive of some Confucian scholars in order to silence the opposition of the literati. China under the Chin Dynasty certainly could not have accomplished what she did except under a ruler with Napoleonic genius exercising despotic power.

But could Chin Chi Huangti have carried out his vast projects if Chin had not had her economic foundation? Could the rulers of Chin State have vanquished their rivals with a sparse population struggling for existence with depleted soil? How far would underfed armies have marched on empty stomachs? And what engineering works could have been constructed with starving workers and an empty treasury? A second economic foundation therefore must be admitted.

Soil fertility and land productivity had brought on general prosperity which made Chin accomplishments possible.

But military campaigns are expensive, and funds have ultimately to come from the people.[1] The same may be said about the construction of public works. A prosperous country will bear up under the strain for some time. But heavy taxes and enforced services exhaust the people's savings and put them in the condition of living from hand to mouth. Unless relief is given in time this condition usually ends in economic disaster.

[1] Just how heavy the taxes were at this period is not known. It was recorded, however, that the average taxes on land, on mouths (poll tax), and on iron and salt amounted per person to twenty times as much as during the earlier part of the Chow Dynasty, and that the amount of taxes paid in service (forced labor) was thirty times as great. According to the record, the emperor employed at one time 400,000 men in building the Great Wall; 500,000 in defending the frontiers and 700,000 in the construction of palaces.

Proof of this is given us in Ku Kin Tsi Pin Liu's record of the Chin Dynasty, that the emperor

used the strength and services of the people as much as he could, afraid that he would not make use of all their energy. So at this time the men worked hard on the farms, but were unable to get enough to eat. Girls spinning could not get enough to wear. Therefore the people became dissatisfied with the Chin Dynasty, and hence the outbreak of the rebellion.

That the sufferings of the farmers were directly responsible for the overthrow of the Chins is proved by the fact that Chen Shen, the leader of the revolt, was a farmer who dropped the plough to grasp the sword.

Thus closed the chapter of the Chin Dynasty, brought to an end through her economic exhaustion just as it had risen through economic prosperity.

CHAPTER III

From the Han Dynasty Through the "Five Dynasties," 202 B. C.-959 A. D.

HAN, 202 B. C.-220 A. D.

Out of the economic disorder and political upheaval which resulted in the overthrow of the Chin Dynasty, the Han emerged as its successor through the military success of Kao-tso. It inherited all the bad economic conditions bred by the excesses of the Chin rulers. Internecine war had brought suffering in its wake. "People lost their occupation, and there was a great famine. One load of rice was sold for 5000 (cash). The people became cannibals and more than one-half of the population perished. After the empire was pacified there were no savings nor reserve food left."

Thus it behooved the early Hans to bring the country out of this desolation and suffering to settled industry, production and savings. This was not a very difficult task, for the soil was not in a chronically bad condition. Less than forty years before, fields had been generally productive and the country was prosperous. It had only collapsed because of the intensity of the strain which the Chins placed upon it.

Moderation and wisdom, and appreciation of the interests of their subjects were called for; and these qualities the early rulers seemed to possess in large measure. To their credit be it said that they did bring the country back to production and that too in spite of revolts, palace intrigues and Tartar inroads.

Thus Kao-tso or Kao Ti "revised the criminal law in the direction of clemency; lowered the land tax to one-fifteenth (instead of one-tenth); transported grains from Kwan Chung (Shensi) to feed the people of Chun Dau (Honan) and reduced the salaries of all officials." He permitted famine sufferers to sell their sons in order to procure food from Tso Hou (Szechuen), facilitated communication by improvement of roads and construction of bridges, built post houses, travelers' rests, etc.

Unable to extend his authority over the southern provinces which the Chin rulers had subdued, he wisely recognized that section as an independent kingdom that he might devote his energies to the doing of more important tasks in his own domains.

After the accession of Hwaiti (second emperor 194-188 B. C.) and during the regency of Empress Dowager Yu, food and clothing became plentiful. Prosperity increased in the reign of Wenti, the third emperor, who was economical. His efforts for the improvement of agriculture and the reclamation of waste lands were strenuous and crowned with success.

Wenti reduced taxation or granted exemptions when harvests were poor. The coinage of money was permitted in other cities of the empire instead of exclusively at the capital.

The improvement of conditions may be seen in these facts: that crimes were lessened—one of Wenti's boasts being that after he had been a few years on the throne, there were "not 400 criminals in all the gaols of the realm"; and that there was a revival of letters at this time. The next emperor's reign gave China 16 years of uniform tranquility (freedom from Tartar invasions, etc.) and the nation made good use of its prosperity.

But in 140 B. C. a change took place when a "fighting

emperor" (Wuti) ascended the throne. Armies were dispatched to attack the barbarians on China's borders and heavy taxes of all kinds were levied on the people. Parents with sons three years old had to pay taxes on them. Some even killed their sons as soon as they were born. And so much forced labor was exacted from the people that many had to give up their principal occupation (agriculture). And as the strain increased, there followed all the attendant ills of an exhausted people. Tung Chung Shoo, in his petition for a *limitation of land holdings,* reveals to us the condition of the poor. They were so reduced that they lost all their holdings to the rich, so that it was a common saying of the day—"that whereas the land of the rich extended from fields to fields, the poor had not enough to accommodate the point of an awl." Landlords being given a free hand, rent went as high as 50 per cent of the produce. This, coupled with the taxation and services required, drove the poor farmer to desperation. "The universe was exhausted and the people desperate." And when added to this there was a flood due to the overflow of the Hoangho, there was a great famine. People even ate one another; unnumbered thousands died of starvation.

No general revolt was brought on by these conditions, however, for Wuti had been making conquests along various borders and could have quickly suppressed all attempts at rebellion. (It may here be noted that neither did China collapse while Chin Chi Huangti was at the helm, but that the revolt broke out as soon as he died.)

But during the latter years of his reign Wuti regretted his military expeditions and instituted measures for the enrichment of the people. He conferred the title of Foo Ming How (People-Enriching Marquis) on his prime minister and appointed Chow Gor (89 B. C.) to be Sou Show Tu Wai (Sou Show, grain seeking; and Tu Wai, officer) or general

officer for the raising of grain. The idea was to let him take charge of agricultural affairs and his chief duty was to increase the yields of cereals,—hence the name "grain-seeking."

It is recorded that grain was transported to the famine sufferers, exemptions granted them, and permission given to travel in search of food. Volunteers were recruited to cultivate the lands of the South Barbarians, and soldiers instead of being sent on military expeditions were ordered to dig wells and ditches, and to procure the alluvial deposits of rivers for the irrigation of fields—thus, "The spear was raised to make rain clouds and the water ways were opened to make rain." And the officers especially appointed in charge of the various branches of agriculture, not satisfied with encouraging and teaching the people, invented implements and tested methods the benefits of which they immediately passed on to the people. For illustration the invention of the Lou Tau at this time may be mentioned—a sowing device attached to the plow, whereby plowing and sowing may be done at one and the same time.

Thus the latter part of Wuti's reign is characterized by agricultural efforts and improvements, and the references for this period are the most important since the time of the Chow Dynasty, wherein the government actually taught the people to farm.

For some 50 years after Wuti, the country under Emperors Chaoti, Shenti, and Yuanti, followed the same policy of restoration. Taxation was reduced, fields, seed and provisions were loaned to the poor and every encouragement was given for the return of the wandering and their resettlement for the purposes of agriculture and production. For the first time in history we hear of the establishment of the "constantly normal granary" as an aid to farmers in stabilizing the price of grains, etc. (The government pur-

chased grain when it was cheap to store in this granary; and then, when the price was high, it took out the grain and sold it—thus effecting a stabilizing of prices.)

The result was a large increase of population (return of the wandering) and a small amount of savings.

Yet, we are told all the efforts of government and people could not make food plentiful and sufficient. This restoration, much as it did, was not able to cure or check the tendency towards large estates which we noted in the early time of Wuti. An imperial edict of Aiti describing the conditions of the time says "that the rich and poweful possessed land and slaves without limit, while the poor lost their occupation (farms) and were suffering severely from the results of insufficiency." The cry for limitation of holdings was heard on all sides and later even a law was proclaimed to that effect, but was not enforced due to the influence of court favorites. Further, floods and calamities were frequent after 33 B. C. (reign of Chenti) thereby aggravating the situation. Popular disturbances arose and there was a decline of central authority.

At this time Wang Mang usurped the powers of government and put into effect a law for the limitation of land holdings to 900 mow for a family with 8 or less male members (on the basis that the ancient Tsing for 8 families consisted of 900 mows); all surplus was to be given to neighbors or relatives. However, his well intentioned efforts were not successful in that such readjustment was impossible under the circumstances. It meant a single-handed fight with all the wealthy and powerful families in the country—and the affording of opportunity to the officers to make fraudulent gains through dishonest practices. The whole empire was so greatly disturbed that Wang Mang had to rescind the law and to decree that land could once more be freely bought and sold. Thus ended what is popularly known as

Wang Mang's unsuccessful attempt to restore the Tsing Tien System.

Wang Mang not being able to gain popular favor was soon displaced by the so-called "Red Eyebrows," who were rebels from Shantung, and who in turn made way for the restoration of the Hans.

SECOND HAN, 25-220 A. D.

The interruption of Wang Mang had caused little change in the land conditions of the country. Conditions had been growing worse and opportunity came for rebellion and usurpation. Wang Mang's brief rule being ended, the country was left very much as it had been except for a great reduction in the population, it being estimated that only 20 to 30 per cent were left.

This reduction of population was in itself a remedy, for there was public land (left ownerless) which could be given to the poor and to returning wanderers. The level-headed Emperor Kwong Wu was able to establish himself securely on the throne by quelling rebellion at home and repelling invaders from without. In his administration Kwong-Wuti strove to restrain the ambition of the great and "to govern the country in accordance, not with the interests of the few, but with the necessities of the many." Dishonest officers were punished; every encouragement was given to agriculture by the extension of irrigation; the poor were relieved through tax exemptions and provided with lands, seed, and food. Even lands belonging to the ruling house and attached to its imperial ancestral temples were thrown open for cultivation. This policy was followed by the two succeeding emperors with increasingly good results. Mingti regulated the course of the Hoangho, the overflow of which annually carried disaster to adjoining provinces, by building a dyke of 30 miles so that nothing more is heard of the overflow of

the Hoangho (Yellow River) so long as this was kept in repair. Changti constructed a road to Cochin China. The population slowly but gradually increased and the people were able to pay attention to other matters than the production of food. Buddhism was introduced officially into China at this time. Trade was pushed far into Western Asia, Parthia and even Italy; a new kind of writing paper was invented; and once more men turned to literary pursuits.

But during the reign of the fifth emperor (107 A. D.) famines were frequent and serious; and there followed wars with the barbarians and internal disorders and insurrections so that with the ascension of Hwenti (147-167 A. D.) the fire of rebellion spread in all directions. The country was distracted by the conflicting pretensions of the ambitious for the founding of a new dynasty. Civil war and sectional strife resulted in the establishment of the Three Kingdoms, with Wei leading, both in population and territory. When it was not too busy in waging war, Wei pursued about the same kind of policy as Han had continuously followed, i. e., trying to improve conditions. Agriculture was fostered and the Wei aims may be summed up in the words of Wei Tai Tso, "the best way to tranquilize the country is simply to make the army strong and the food sufficient."

Wei seems to have been the most successful in carrying out its economic policy; and finally its commanding general conquered the rival kingdoms and brought China together again under his new dynasty of Tsin (265 A. D.)

TSIN, 265-419 A. D.

With peace restored Tsin should have held the country together and made it prosperous. Everything started well. Land policies were looked into, the distribution of land was equalized, and relief and encouragement measures were

instituted. As a result there was a marked increase in population.

However, this happy beginning was but short-lived. The northern barbarians came in and took possession of northern China, reducing the Tsins to the southern portion only. And these barbarians not only came in, but stayed, forming the Northern Dynasties at this time.

The southern empire thus reduced in territory, did the best it could in resisting invasions and suppressing rebellions and piracy, etc. Changes in the south ran parallel with those in the north for 200 years until 588 A. D. when the country was united under the Northern Chow Dynasty.

The Northern empire played the more important rôle even though its rulers came from the lately dreaded, yet despised, northern Barbarians.

Having tranquilized the conquered northern provinces, they adopted all the best administrative measures known to Chinese experience. They took special pains to find out the conditions of the people, and granted tax exemptions, free seed and provisions wherever needed. New lands were opened for settlement, irrigation plans were devised and executed, agricultural knowledge gathered and taught to the people, and public granaries built to stabilize the prices of grain. The office of Sze Chang (officer in charge of granary) was revived " to store the five grains so as to prepare against famine and disastrous years."

Seeing the luxury of the rich with their unlimited extension of land holdings as contrasted with the misery and suffering of the homeless poor, Northern Wei revived the old system of land distribution, with this difference: instead of there being lands to be cultivated in common for the government, taxes in money were substituted. This restoration of the Tsing Tien System was easily accomplished because the population of North China not only had been reduced

in the struggle between the Tsins and the invaders, but were again reduced when Northern Wei permitted the faithful subjects of the Tsins to migrate southward and live under their old rulers.

There were innumerable tracts of land deserted and unclaimed which the government could distribute so that instead of having to confiscate the possessions of the rich for the benefit of the poor as in Wang Mang's time, the Northern Wei rulers simply rented to the people lands which had reverted to the government.

The northern empire comes down in history first as Northern Wei, which was later split up into Western and Eastern Wei, which in turn were respectively succeeded by Chi and Chow. The latter absorbed the former, and then by conquering Chen, the representative at that time of the Southern Dynasties, the victorious general of the Northern Chow founded the Sui Dynasty, which, ruling a reunited China, extended the northern policies of agricultural administration throughout the empire.

SUI DYNASTY, 589-617 A. D.

The Sui regime opened with brilliant prospects, with population increasing and the country on the way to recovery. The ancient supremacy of China over her neighboring peoples was again asserted, because the northern barbarians were driven back and Corea subdued. Education was fostered and civil service examinations were first instituted. New maps and interesting descriptions of the countries of Asia were published at this time. The government took steps to improve communications.

This is the dynasty which built fine palaces as well as the Grand Canal, connecting north and south, for the transportation of grain. This canal was 40 yards in width, was lined with stone, and had its banks planted with elms and

willows. Nor was this the only canal constructed, for it is estimated that more than 1600 leagues of canals were either constructed or repaired at this time, forming a network of waterways rendering all large rivers navigable throughout their course and all communicating with one another.

But such gigantic undertakings were very costly, and had to be paid for by the country. It is recorded that not counting the canal works, but considering the construction of the palaces and public buildings in the capital alone, two million men were employed. And although part of the labor for such projects came from the soldiers and part from hired workmen, the third part had to come from the inhabitants of towns and rural districts as forced service. The exchequer became exhausted, the harassed people revolted—thus ending the Sui Dynasty which yielded the sceptre to the Tang.

RECAPITULATION

Before we resume our historical survey let us summarize the results of our study of the eight centuries extending from the end of the Chin Dynasty to the end of Sui.

We have learned that periods of scarcity and famine alternated with periods of abundance and prosperity, that political changes were directly traceable to economic conditions and that dynasties fell because for various reasons agriculture was neglected or failed to be sufficiently productive and that dynasties rose when a change for the better was promised.

Signs of soil depletion were plentiful throughout this period. So were the frantic efforts made to counteract this tendency. All the expedients known to agricultural science, with the possible exception of chemical fertilizers, were used to maintain soil fertility or to increase productivity.

Two attempts were made to revive the Tsing Tien System of land distribution—Wang Mang failed because he was too weak to cope with the large land owners; Northern Wei succeeded because it was in a position to ignore them. That there was a strong tendency to latifundia was clearly apparent.

We find that great strides in agricultural knowledge were made in this period. A book on agriculture (Chi Min Yao Shur) written in Northern Wei by Chai Sze Si, is, according to the Imperial Library Catalogue (compiled at the beginning of the Tsing or Manchu Dynasty), the best book on agriculture written in Chinese up to the time of its compilation.

Just how much of the practices and devices recorded in this book belongs to the Hans, in the sense of being used by them, we cannot ascertain: but Northern Wei being so near to Han in point of time, we can safely assume that Han agricultural knowledge was highly developed. There was knowledge of the particular seasons best suited for plowing, for sowing and for harvesting of the various crops to the best advantage; knowledge of soil and crop adaptation; of rotation, of the value of legumes, of intertillage, etc. It was doubtless by the application of such knowledge that the soil was kept productive throughout the period.

TANG, 618-905 A. D.

Coming now to the Tang Dynasty, we find only a few casual references concerning land restoration. An era of economy was inaugurated, regular taxes and services were reduced, arbitrary taxes were abolished, and the expenditures for administration were drastically curtailed. But these were political measures rather than agricultural. The only strictly agricultural measures recorded were those giving tax exemption to farmers or food to victims of flood and famine be-

sides the projects for irrigation carried out by various local officers. The system of public distribution of land was continued under a new law; but nothing is said of instruction in agriculture or special officers in charge, as existed under other dynasties.

However, the country became prosperous under the new regime as the records show. The second Tang emperor pursued an imperialistic policy. His armies were constantly employed against one or another of the neighboring states, after the pacification of his own realm. His generals were uniformly victorious, gaining territory and prestige although paying a heavy price in blood and treasure. However, the country did not seem to be disturbed by the foreign wars as records of Tai Chung's reign characterize it as one of the most brilliant in Chinese history. Farmers were permitted to till their fields in peace. With abundant harvests food became cheap (the price of millet at this time was as low as two cash for one do). The population was increasing while wanderers returned, since there was an edict promulgated at this time instructing officials "to assign fields to the wandering poor." This was also a reign of great intellectual activity and literary splendor, comparable to the Augustan Age or the Elizabethan Era.

The next emperor, Kao Chung (650-683 A. D.), followed his father's footsteps in domestic affairs and in dealings with foreign nations and was equally successful. But he paid more attention to agriculture.

The emperor worked on the imperial farms himself. Hearing complaints that the rich were "eating up" the land of the poor, despite the prohibition of buying and selling of cultivated fields (this being a period of public ownership), he decreed the restoration of such land to the original owners. He also prevented the monopolizing of water for irrigation purposes by the rich and powerful. Nevertheless

famine raged over an extensive area; there was food scarcity in the capital itself, not due to flood or insect pests but to *lean years.*

Under Hsuan Chung (713 A. D.) court expenses were reduced, and various services were remitted for the encouragement of the farmers. Much attention was called to the widespread evil of land gobbling at this time, characterized as worse than during the Han regime just prior to Wang Mang's usurpation, and an edict was promulgated for the purchase of all such lands and their restoration to original owners at the expense of the government.

However, such well-meant measures failed to eradicate deep-rooted weaknesses or ward off impending disasters. The tendency towards latifundia had gathered too much impetus to be checked by legislation, for it is easily understood that the farmer does not give up his land unless forced to do so. When during the latter part of Hsuan Chung's reign China was invaded from the north, the people had lost all power of resistance. When the enemy took possession of the capital, Hsuan Chung abdicated in favor of his son and fled. A rival state was established north of the Yellow River, thus involving the country in Civil War.

The next emperor, Sou Chung, was finally victorious, but a rebellion headed by one of his generals was not suppressed until the time of Tai Chung (763 A. D.) and entailed untold suffering on the people and vast damage to the country, especially the northern provinces. The population had decreased by tens of millions. The price of rice was so high that even chaff was sold for food and beggars infested the public roads.

Attention to agriculture became urgent. Sou Chung issued orders for the appointment of a farm supervisor for each district, and settled two-thirds of his soldiers on the farms. Provincial officials were ordered to teach and en-

courage farming, and to admonish the people not to neglect their fields. That tillers might have no reason to forsake their lands and scatter to other parts, rich and influential families were forbidden to enlarge their estates or monopolize water courses suitable for irrigation.

Tai Chung had an able economic administrator in Liu Yen, who by careful management of the finances made the revenues sufficient without additional taxes from the people. All services were suspended so that farmers could devote their time exclusively to the farms, and those needing the same were aided with seeds and remission of taxes. A census taken at this time indicated economic improvement with the country progressing to a better condition. At the beginning of the next [1] reign, the country seems to have attained a fair measure of prosperity. Agricultural improvements were put through and volunteers called to cultivate the waste land. It was said that the "fallow fields (waste fields) were fertile and beautiful because they had been left idle for a long time."

But much more was needed to be done for the farmers whose savings were scanty. The government, however, was at the end of its resources on account of the heavy drain for the support of the army. As a result, more and more farmers were plunged into misery and want. It is recorded that "with a small deficit they had to borrow money at exorbitant interest; but with a large deficit they had to sell their lands and houses. They mortgaged their holdings after the harvest was over. They were doomed to suffer hunger and the dispersion of their families."

The hardships of the Tang farmers can be easily deduced from the tax system of that era. It will be remembered that this was a period when the Tsing Tien System flourished;

[1] Te or Der Chung, 780 A. D.

and although this condition of equal land holdings had gradually changed more and more in actual practice the tax system of the time assumed that equality of holdings still existed. (The famous three-fold system of taxation—so called because the bases of taxation were three—land, door or family, and service). As the quantity of land assigned was proportionate to the size of the family this taxation was equitable enough, provided the tax paying farmer had not alienated any part of his allotment; otherwise, the tax was too heavy a burden to be borne.

Hence the reform of Yang Yen occurred at this time and the establishment of his famous Bi-Annual Tax System. This was called bi-annual because it was levied twice a year; but the significance of the system lies in the fact that land was the sole basis of taxation—all taxes being consolidated into the one (i. e., with respect to farmers, merchants having to pay a graduated income tax, etc.). People were now taxed not according to their age—whether able to cultivate land or not—but according to their wealth or the amount of land possessed. This laying of the burden of taxation according to ability to bear it of course made necessary the recognition of the latifundia, which had existed in reality though it was not legally recognized. Thus the establishment of the Bi-Annual Tax System was really a reestablishment of private ownership of land.

The Bi-Annual Tax System and the various improvements were measures helpful to the country; but the country being exhausted as it was and the government unable to give sufficient relief, the situation steadily grew worse, giving room for attacks on the Bi-Annual System itself, Yang Yen being blamed for the conditions which he had tried to relieve. The force of the movement naturally gained in momentum as the conditions became more difficult of remedy. The straits of the exchequer are seen in the tax

on tea, which was first levied at this time. The government, which reflected the prevailing conditions and in the last analysis was subject to them, became less and less able to give the necessary relief.

The decline of the Tangs began therefore about this time. What general relief the government was able to grant came through the confiscation of Buddhist temples, which yielded some tens of million chuans of fertile fields; but even this additional land was not enough to check the downward movement. The country grew more and more exhausted. Instead of complaints about large estates only, we hear now of fields being more and more left waste, and while at first the government regulations prescribed giving such fields for temporary cultivation to the wandering, the later regulations provided for giving such fields to them as permanent property, thus showing clearly the decline of agriculture. For the presence of latifundia only proved that the land had passed out of the hands of small farmers; but the presence of fields left waste showed that their cultivation was no longer profitable.

Beginning with Emperor Yi Chung (859 A. D.), whose extravagance greatly contributed to the evils from which the people were suffering, there came a succession of revolts, uprisings, wholesale massacres and executions. There was dissension and strife on every side. The picture presented about 888 A. D. was a very distressing one—the country desolate, towns ruined, the capital in ashes. Not a province that had not been visited by civil war, not a fortified place which had not undergone a siege. There was confusion in administration and absence of all public spirit, each governor striving to make himself independent of the central government. In this chaotic condition of the country, Chu Wen, an ambitious general, murdered the last Tang emperor and proclaimed a new dynasty with himself as emperor.

FIVE DYNASTIES, 907-959 A. D.

The disorders which put an end to the Tang Dynasty may be said to have continued for over half a century—for, succeeding the Tangs there was a rapid succession of five dynasties in a period of some 52 years. This period is known as that of the Five Dynasties during which such confusion reigned that no reliable records are available and which must therefore remain largely a blank in this or any other Chinese history.

CHAPTER IV

Sung Period, 960-1276 A. D.

SUNG DYNASTY, 960-1276 A. D.

We come now to the Sung Dynasty with a reunited and tranquilized country, a revival of the emperor's authority and a restoration of the blessings of good government for almost a century.

On his ascension to the throne, Tai Tso granted a general amnesty to political offenders and enjoined on all obedience to the law and preservation of the peace. Soldiers were settled on farms; food was distributed to the hungry; and encouragement was given to agriculture, not only for the production of the accustomed crop of rice, but for the diversification of crops and the extensive planting of trees of all kinds. He ordered the free distribution of farm implements, and the appointment of agricultural experts. Homeless wanderers were cared for at public expense and given waste fields for cultivation, which were tax-exempt for several years.

Moreover, he encouraged learning by all means in his power, and laid great stress on education and the general diffusion of knowledge.

Let us not forget the economic chaos that the Sungs inherited. As far back as 742 A. D., food production had declined with consequent hard times and famine and during the last part of Tang and the fifty-two years of the Five Dynasties there had been a steady decline due to the inability of the government adequately to relieve the situation.

There certainly had been no opportunity for the replenishing of food stores during all these years.

There was a large decrease in population, of course, which made the problem easier for the Sung rulers. Still, the subsistence of the surviving multitudes gave serious concern. While the land area of the country remained the same its productivity had been considerably reduced. Deserted farms were found all over the country, over which roamed large numbers of homeless people who had forsaken their fields to escape taxation or to run away from debts which they could not pay—the fields not being productive enough to be worth cultivating.

The government tried to remedy the situation by calling back the wandering and giving or renting to them the deserted fields, granting tax-exemption for a number of years and then levying only a reduced tax. A sort of Tsing Tien System, known as "Modified Tsing Tien," was formulated as a plan of relief and the officers in charge set out in earnest to execute it. But the condition of the soil was found to be such as to render the system unworkable, and hence it had to be abandoned. For the soil was of such varying degrees of fertility that holdings had to be mapped out and calculated with nicety. And after all the heavy administration work and expenses involved in calculating, mapping out, and giving aid in the form of seeds and food, the occurrence of a flood or drought might render all such efforts futile.

Not only were there the unoccupied lands and the multitudes of wanderers to bear witness to the state of soil depletion, but also the scanty harvests. The small farmers were so hard pressed to make ends meet that interest rates soared to all heights, Tai Chung (second emperor) having to prohibit by edict the charging of interest above 100 per cent.

Alleviation of the dire straits into which the farming population was plunged taxed to the utmost the resources of the government. But after forty years of peace a change for the better was distinctly noticeable, though the improvement had come about gradually.

During the reigns of the third and fourth emperors the population increased and the cultivated areas were largely extended.

But peace and good government are expensive things to maintain. Armies had to defend the country against its warlike neighbors (Tartars in the north and Hiuho in the West). The extension of education, for which the Sungs were famous, cost large sums, as, for instance, the reestablishment of colleges on the Tang plan. The Emperor Ren Chung's reign was signalized by the development of arts and literature and made illustrious by many men of genius. At this time a college with a corps of professors was founded in every town, whose duties included the examination of candidates for public office. "The History of the Tangs," comprising 225 volumes of the most remarkable literature in the Chinese language, was written by Sze Ma Kwong and published by the government.

Heavier taxes had to be levied for the support of education and the encouragement of learning. Though Ren Chung, having the interests of the people at heart, did his best to make the burden as light and its distribution as equal as possible, he could not accomplish much under the conditions with which he had to contend. For soil depletion had progressed to such an extent that latifundia had developed on the one hand, and poverty and misery on the other. There were many large land-owners who escaped taxation, while innumerable small land-holders were paying more than their share. Ren Chung first tried the limitation policy on holdings, but when this failed he next sought for a

remedy in the so-called system of "Square Fields,"[1] the object of which was an accurate survey and delimitation of fields, and the classification of land according to its productivity—to make assessments fair, since he was unable to limit the holdings. But even this policy was unsuccessful and had to be abandoned.

In pursuance of this policy, it was necessary to take from the rich and powerful to give to the poor. Such a policy had its own difficulties, for even after the redistribution was effected, the task was not accomplished unless the restored property could be kept in the hands of the poor. But how could the poor man keep land from rich and covetous neighbors intent on enlarging their real estate holdings? If his land was fertile and he could produce on it enough to make him independent of his neighbors, it was an easy matter, but should it be of poor quality, and should it grow poorer because of his lack of capital to improve it, sooner or later it would again come into the possession of the rich.

As a matter of record, it was found that the poor were in such desperate straits, that they, as well as the rich, were upset by the "Square Fields" System. For they were living from hand to mouth, and depended so much on the ripening of the crop on whatever land they tilled, that they were hampered by the slow operation of the system and in many cases suffered irreparable loss.

It appears evident that this desperate condition of the poor farmers was due to depletion of the soil. Crops became smaller and smaller unless tremendous efforts were put

[1] The System of Square Fields was this: To divide all arable land in the country into plots of one thousand pu square, each plot thus containing 41 chuan, 66 mow and 160 square pu, and to divide the land into five classes. The classification was later expanded into ten. On each of the classes a rate was imposed, based on the gross produce of the land.

forth to counteract the tendency, so that there was little chance for savings if there was not actual insufficiency. Liu Ping, living in this period, says: "There was no harvest last year; and failure of the wheat crop results in famine this year.—The plains are just as red as jer (stone of red color) and, as for the rice fields—it is impossible to tell the grain stalks from the weeds, and all over the four sides (everywhere) there grow all kinds of weeds."

With the soil in such a condition it was possible for one with accumulated savings to devote time and capital to its reclamation; but for one devoid of resources it was a very difficult if not an impossible undertaking even with government aid of seed and food. Thus the government had to offer great inducements to the wandering to settle on the land. They were permitted to cultivate unoccupied fields and were furnished with seed, oxen, plows and food by the government. In addition, their fields were entirely tax-exempt for a period of five years, after which only a reduced tax was required. Men who were guilty of crime were pardoned or had their sentences suspended provided they became tillers of the soil.

These measures were absolutely essential considering the large tracts of unoccupied or waste land found all over the country, which in some sections amounted to 90 per cent of the total arable area.

Gradually, the very attractive terms offered by the authorities led to more and more fields being put under cultivation; but with the settlers so poor and the soil so lean, additional relief was necessary to enable them to "build up" their farms. The government was unable to give all the relief required, as its revenues had been cut down in the long period of readjustment. To give more aid to agriculture would have deprived the army of adequate support. Hence a period of depression set in. The

poor failing to make a living on their farms sold out to the rich. The growth of latifundia proceeded apace and the poor took to wandering in ever-increasing numbers. Famine swept through the country and the government was embarrassed because it was unable to give adequate relief. Neither did it dare to move the famine-stricken to other places, for fear of spreading the trouble. Since the saving even in prosperous sections was small, the feeding of big hordes of the hungry soon exhausted the small stores. Thus suffering, starvation and death were the lot of the unfortunate.

Favored with a period of peace, the next emperor (Sun Chung) made great efforts to improve the situation. The system of Square Fields was again tried, but again had to be suspended. When famine stalked through the land it was not a propitious time to insist on niceties of boundaries or the minutiae of taxation. The rich were taking advantage of the poor, and the strong were devouring the weak. All the writings which have come down to us from those times portray striking contrasts of the rich wallowing in luxury and extravagance, and of the poor dying in misery and want. One lean year followed another; every spot that could produce food—as the sites of old ponds and dried reservoirs—were filled despite legal prohibitions.

The "squaring" system had as its object the ultimate relief of the poor, by its readjustment of tax assessments. While the surveying and rectifying of boundaries might cause them some temporary inconvenience they would be benefited in the end. But the starving cannot look beyond the necessities of to-day. They can not wait for slow-coming benefits since they may die before the morrow comes.

It was this hand-to-mouth existence which forced the Sung farmers down to the lowest depth of misery. For because of his dire needs, he overcrowded his fields, ex-

hausting his soil more and more and in proportion as he exhausted it, he reduced his ability to support his family.

On the other hand, the fields of the rich were beautiful and flourishing inasmuch as they did not impoverish their lands by continuous tillage and were able to make improvements.

This tendency of land to deteriorate was not unknown to the people living under the Sung Dynasty, for the foregoing comments taken from contemporary writers show that it was a subject of discussion and that the steps in the process of depletion had been analyzed.

But what was to be done? It was something to have correctly diagnosed the ailment of the body politic. It was a different matter to apply the remedy that the situation demanded.

At this time Wang An Shih, a keen and able administrator, appeared on the scene of political action. Carefully observing the situation, he saw the hard-pressed condition of the farmers. He saw that they lived from hand to mouth and that their income came only after their harvest was gathered, whereas their needs spread throughout the year—thus exposing them to the rapacity of the rich who lowered the prices of grain when the farmers were forced to sell their crops, and raised them at other times.

It was the practice of the farmers in need to borrow from the rich, mortgaging their crops in so doing. But for such loans they had to pay usurious interest of several hundred per cent, so that though afforded temporary relief, they were started on the sure path of financial ruin.

Wang An Shih devised and enforced his own plan, known as the Farm Loan System, to solve the difficult problem. Under it, the government made loans to the farmers at a moderate interest (about 40 per cent—moderate as compared with the current rates in vogue) during the planting

and growing season when the farmers needed help most. These loans were known as "Green Sprout Money" because they were first issued at the time when seeds put forth green sprouts. Two loans were made each year, one for the summer crop, and one for the autumn crop. The loans were liquidated also twice yearly, after the harvests.

It would seem that such a system would greatly relieve the situation. But creation of a system was not sufficient; very careful, wise and sympathetic administration of it was necessary. Neither could relief be expected in a day, for the economic malady had become chronic and deep-rooted.

But such an administration the system did not have and it, therefore, was not successful in accomplishing what Wang An Shih designed for it, (1) partly because of the very depleted condition of the soil, (2) partly on account of the incompetence of the officers who administered it, and (3) partly because of the ignorance of the farmers themselves.

We say partly through the very depleted condition it had to cope with, because it was not only exorbitant interest the farmers could not stand—they could ill afford to pay any interest whatever. The reason they had to borrow money at an exorbitant rate of interest was because they were in desperate need and were willing to accept loans regardless of the consequences. Thus it required tremendous efforts even to pay the "moderate" interest on the government loans—such efforts exhausting the soil so that it became less and less able to produce enough to wipe out the debt.

We say partly on account of the officers who administered the system, because they lacked insight and sympathetic appreciation of the real situation of the farmers. Their business was to make loans, and so they tried to make as many as possible. And when they encountered trouble in mak-

ing collections they demanded that the rich should stand surety for the poor. When the poor Sung farmer was unable to pay off his loan he deserted his farm and wandered away; the rich surety who had to pay his unfortunate neighbors' debts soon found himself as poor as they.

Lastly, we say, through the farmers themselves, because they overestimated their ability in proportion to their wants. Thus, as loans could be so much more easily obtained than formerly, their wants grew, and the time of payment found them insolvent. Yet, how could they be blamed, human as they were, for lack of prudence and foresight? The temptation to gratify the desires of the moment was too great since fate gave them little to look forward to.

Similarly the official bankers could not be blamed for their lack of insight and sympathetic appreciation of the situation. Men with such qualities are rarely found—especially in the large numbers required. Is it not true that even to-day with our added centuries of training and development, the very best of policies often fail for want of the right kind of officials to carry them out? These Chinese officers did their duty in placing loans and calling them at maturity. They did their level best to give out as many loans as possible and to see that they were secured.

But the situation was too far gone and the Farm Loan System as tried was pronounced a failure, conditions continuing the same as before, and Wong An Shih was blamed for failing to achieve the impossible. The contrast between the condition of large landowners and that of the small farmers continued. Soil depletion was encountered at every turn. "Good seeds are planted, but worthless crops are harvested," says one writer. Too much rainfall was as bad as a drought. In either case hordes of lean and suffering humanity left their farms in despair and sought

sustenance by tramping. There were of course many who rented land from the large land-owners; but on their rented farms the same conditions existed and collectors were always at their doors to dun them for rent, debts, or taxes.

Another court faction came into power, headed by Sze Ma Kwong, who gained the ear of the emperor. The Farm Loan System was abolished and the old relief plans with public granaries, etc., were restored. But the situation was not improved and in fact went from bad to worse. If a small river overflowed its banks there was famine in its vicinity. As a contemporary writer well remarked: "It is not the occurrence of flood and drought which are the things to notice, but the fact that such events should bring the results they do. While in other years bad harvests were of common occurrence, still the people were able to stay on their land satisfied, but today they must quit their homes to wander away." Dead bodies strewed the fields, human flesh was eaten, the weak died and the strong became burglars and brigands.

Dazed by the immensity of the economic crisis the government was also paralyzed by lack of means to meet it. The scant treasury funds were barely sufficient for the subsistence of the army, which was the only thing that prevented an invasion of the Tartars on the north. Sze Ma Kwong further tells us that a suggestion was made—to take from the rich the necessary means for the work of relief; but it was rejected in the fear that before the poor could be relieved, their numbers would be swelled by those whose wealth had been confiscated. Thus he frankly declares that there was no remedy, and the only policy left was "to sit and watch for something to turn up"—a precursor of the famous "watchful waiting" policy of our time.

However, it must be understood that this did not mean a cessation of efforts to ameliorate the awful conditions, for

these continued, inadequate as they were. In various localities irrigation projects were undertaken and encouragement given to agriculture, though no particular mention has been made of them because they were taken for granted.

In this crisis Wang An Shih's Farm Loan System was once more (Emperor Jer Chung) tried and again abolished. The downward movement could not be checked. The years were getting leaner, drought and flood disasters became frequent, and relief work at this time was simply nominal as the government had no stores in the granaries with which to do the work. There were various local improvements made for irrigation, etc., but records are wanting which tell of inducing homeless wanderers to cultivate the waste land. Soil depletion was well understood, for there is extant a report of Yu Hwei Tsing, an official of Tai Wuan (Shansi), which says that tilling on waste lands did not yield enough to pay expenses.

Problems of a depleted treasury and an exhausted country now (Emperor Hwai Chung) pressed for solution with redoubled force because the northern barbarians were gaining strength. Under Emperor Hwai Chung the system of Square Fields was revamped and put to work. Thrice it was decreed and thrice rescinded. Food was so scarce in the empire that the government made strenuous efforts to store grain in preparation for a threatened invasion of the northern barbarians. Money was taken from the emperor's private treasury and from the Normally Constant Granary. A price higher than the market price was offered for grain to stimulate sales, and the systems known as Chuen Ti, Hwai Ti and Ho Ti (measures for sale and contribution of grains to the government) were instituted, urging the people to lend their grain to the government, to be returned to them when they needed relief. Also at this time official sanction was given to the conversion of lakes, reservoirs and river beds into fields, a practice hitherto strictly forbidden.

It was a desperate and not too successful attempt to get a reserve supply of food by the government from an impoverished country. And this explains why, when the northern barbarians invaded the northern provinces, collectively known as Hopeh, they easily subdued them because these provinces were more exhausted than the other parts of the country, having been much longer under cultivation and having repeatedly borne the brunt of former invasions. Having lost Hopeh to the northern barbarians who set up the Kin Dynasty, the Sungs had only the southern half of the country left and thenceforth until the end of the Sungs, two lines of emperors ruled over the divided country.

SOUTHERN SUNG, 1127-1276 A. D.

The Sungs, now reduced to the southern half of China, continued their struggle against economic depression and land exhaustion. Various reclamation schemes were devised and put into practice. There was restoration of lakes, ponds, reservoirs, etc., for irrigation, encouragement of the tillage of waste lands through tax exemptions for three years as well as tax reductions, and through the distribution of seeds and food to the needy. And "whenever there was a flood or a drought, the government engaged in relief work in real earnest. But the public granaries had only a limited supply, while the work of relief had no end."

The government exchequer was in dire need of funds though all possible sources were tapped. The System of Farm Loans was abolished and the funds were used to supply the poor with cheaper rice. 100,000 strings of cash (each string being equal to 1000 coins) are recorded as taken from the tea and the salt tax at Hwei Tang and spent in settling volunteers on waste lands. Large amounts of paper currency were put in circulation (paper

money was introduced by the Tangs and largely used both by the Kins and the Mongols as well as the Southern Sung). All these things were done without protest, but the sale of public lands created wide-spread discontent and aroused opposition. This scheme was altogether out of harmony with the situation, since few willing buyers could be found for lands known to be worn out. There were, to be sure, some fertile fields included, but they would be preempted by the rich and influential who naturally had first choice, and the remainder could not be disposed of except under compulsion. This compulsory sale only served to make bad conditions worse for the farmers without serving any good purpose. For with scarcity of grain in the markets, with the population diminishing and with fields left uncultivated, how was it possible to improve matters by forcing farmers to take up more land?

Aside from the problem of getting revenue from the sale of public lands, which was a constant source of irritation throughout the Southern Sung period, there was the harder one of getting production. Of course there were the usual encouragements given to agriculture and the customary inducements offered to the wandering to settle on waste lands.

Soldiers were settled on waste lands in the provinces of Anhwei, Kiangsu, Hopeh and Hunan; and they were tax-exempt for ten years. Trial was given to a plan of Liu Suen, known as "imitation" Tsing Tien, under which every Sung subject who was wandering or working on a branch or subsidiary occupation (allied with or contributory to agriculture) was forced to become a farmer. Fifty mow were distributed to each adult. This constituted a minimum; but those owning more were not allowed to sell. Though like the Tsing Tien in principle of distribution, this plan may be said to be entirely different from the original

Tsing Tien in that the latter was a distribution of benefit whereas the proposal of Liu Suen may be termed a distribution of responsibility.

Such a plan was not a practical one with the soil in the depleted condition that it was, and it had to be abandoned; but the mere fact that it was tried sheds light on the seriousness of the economic crisis.

In Hupeh, tan tien, or government camp farms, were established where people did farming under official direction. But the government found it difficult to get people to cultivate them. At first the wanderers were put to work, and when this was found impractical, ordinary farmers were drafted to make up the quota. Thus farmers had to leave their own land in order to cultivate the official reservations. Much inconvenience and suffering resulted, "the whole empire being disturbed."

There was one source of revenue left which might be tapped—and that was the surplus wealth of the rich. So an edict was issued ordering large land holders to sell out a fixed proportion of their store of grain for public relief. Owners of 10,000 mows or more must sell 2000 loads, and those with less than 10,000 mows, must sell 1000 loads.

But the ranks of the hungry increased faster than the means devised for their relief. Yew Mow (time of Emperor Hsiao Chung) says in his report to the emperor that "the strength of the people in the southeast has been broken down and decayed." This was the most fertile region of all China, on which the supply of many other places had depended. "Not only are there the very poor, but even in middle class families there are no savings except for a few months." As the crops grew smaller famines became more frequent and wide spread. Yew Mow cites for comparison the relief statistics of famines which have occurred within a century. Thus in Ren Chung's reign the two best

known disasters occurred in Shantung and Kwai Gee District in Chehkiang. The number of the famine-stricken in Shantung was 150,000 and the rice used in relief 150,000 loads, while the victims of Kwain Gee District numbered 22,000, and the rice used was 36,000 loads. These were considered unusual disasters in Ren Chung's time.

As to the yields of land at this time—Fan Chen reports to the emperor that it is only one half the usual amount in Kwong Wai, a region outside the Great Wall.

The Emperor Hsiao Chung handled the situation vigorously and dismissed the officials of those districts where people in large numbers had died or were forced to drift to other parts. He encouraged agriculture by lending seed, urged diversification of crops, gave tax exemptions and made improvements in irrigation works—he decreed the opening of fields which had been enclosed by the rich in order to monopolize the water supply.

But as time went on reports poured in of families deserting their farms in increasing numbers and the aggregate amount of land taxes became smaller and smaller. The government still tried to sell the public land to raise revenue, but without success.

There were many complaints made against the large landowners who were the only well-to-do people left in the country. A demand arose for king kai, or surveying and marking of boundaries, as if that could bring relief. It was asserted that tax exemptions really benefited the rich instead of the poor; and that large landowners monopolized the water supply.

If the complainants could only have understood the situation of the owners of big estates! The latter were to be sure enclosing their fields to monopolize water benefits: they were converting lakes, ponds and reservoirs into fields. But they were doing this in their own struggle to maintain themselves

in an exhausted country. Pressed for contributions and forced to sell grain on all sides, the demands on their land were without limit; and in their efforts to comply with the official exactions, their land too was reduced in productiveness. Otherwise, why was it necessary to reclaim lakes, ponds, and swamps if their own fields were just as productive? They were the only producers left in the land; and should have been encouraged to do their utmost.

But clamors against them grew louder and louder, and more and more incessant; the poor and hungry could not see the real situation, and so the goose was killed which laid the golden eggs. The Emperor Li Chung adopted the limitation policy and large land holdings were abolished.

According to the plan, the government was to purchase all land above the permitted limit—but the official in charge was an unscrupulous person who compelled sales at figures below the market price. And not only were the prices allowed arbitrary and unfair, but payments were made largely in paper money which had hardly any value and the proportion of paper money varied inversely with the amount of purchase money, or, in other words, the man with the smaller holding lost more proportionately in the transaction than the man with the larger holding. This made the burden harder on those less able to bear it although it gave the government as much profit in the smaller transaction as in the larger one. But no government can afford to deal unjustly with its own people. Hence it is not surprisng to find that many farmers in Li Chung's reign became bankrupt; and that discontent grew rife.

The government at this time was in a critical condition. The treasury was empty, the barbarians were mobilizing on the northern border; and the country was filled with robbers and brigands. The yield of the land or actual production of the country at that time can be easily imagined

when we are told that the yield per mow of the best land was only a little above one half load. A large volume of paper money was issued.

Finding the country suffering from famine, the victorious Mongols decided to extend their sway over the whole Chinese Empire, and made inroads in large numbers. In this emergency Duke Yin Kuo offered to restore the land to the original owners provided they would lead their tenants against the Mongols. But the Sung story ends here, for Duke Yin Kuo's reign lasted only one year since the country was too weak to offer resistance. The Sung Dynasty was displaced by the Yuan.

KIN DYNASTY (CO-EXISTENT WITH SOUTHERN SUNG)

Before we turn to the Mongol (Yuan) Dynasty, it is of interest to learn how the northern half of China fared during the Southern Sung period. As we know, the north was the more exhausted part of the country and also the part which had suffered most in the struggle with the Kins.

But despite these disadvantages the Kins were better off than Southern Sung. The Kins were fresh and strong, having lately left their wild native territory. They not only brought vigor to the administration, but brought their economic resources as well. There was tribute paid them by the Southern Sungs and other conquered and subject people (Korea, etc.). Moreover, many of the inhabitants of the conquered provinces had been killed or had emigrated to the South at the advance of the Kins so that their problem was a comparatively easy one.

The Kins did not have to make forced sales of public lands; they were in a position to distribute them among the people without cost. Their system was not exactly like the Tsing Tien, because each farmer kept what private land he had and received more land (official) in proportion to

the number of adults in his family and according to the population of his locality.

The waste land was thrown open to volunteers for settlement, who were promised tax exemption for eight years. This inducement alone proves that the Kin government was able to wait a little longer than the Southern Sung government for collection of taxes on such lands.

As may be seen from their liberal land policy, the Kins took hold of the problem in earnest. Under their rule the hungry were given food, the enslaved (those who had enslaved themselves to escape hunger), freedom, and those in thickly populated districts were moved to places in which it was easier to obtain a livelihood. Agriculture was given every aid and encouragement, by protective legislation, by grants of provisions, seeds, implements, work animals, by instruction and advice, and by tax exemption when necessary.

And in other respects also did the Kins prove themselves enlightened rulers, especially in promoting and extending education, the translation of the Chinese Classics into the Kin tongue attesting their interest in Chinese literary culture and ethical teachings.

The Kins were enabled to carry out their policies because they had the inspiration and enthusiasm of earnest reformers. Throughout the government relief records at this time may be found statements to the effect that the rich gave liberally to relieve the poor, in response to the urging of the government or in hopes of obtaining rewards from the government. Aside from the resources of the wealthy among the Kin conquerors the government received tribute from Southern Sung, Laeotung, etc., as well as revenues from the native state of the Kins. The Kins coming from a grazing country were interested in horses and other farm animals and doubtless brought many into China, which hav-

ing to be pastured, contributed to the reclamation of the land so used. And they did so use the land with such results as may be gathered from the records which tell of their permitting people to use waste land as pasture for purposes of reclamation. One half of each piece of land reclaimed was given to the reclaiming tenant and the rest was reserved for the support of the army.

The Kin army was very large and its efficiency had to be maintained, for the Kins were invaders established on conquered soil, menaced on three sides—by the Sungs on the southern border, by the people of Laeotung, held in unwilling subjection, and by the rising tide of Mongols from the north.

The hostility of Southern Sung alone could be safely ignored; likewise any possible uprising in Laeotung; but the large forces of the powerful and warlike Mongols threatened a disaster of the first magnitude.

Even if given a period of peace and tranquility, the settling of its people for orderly production would have required a tremendous effort, and to enable all its subjects to become self-supporting would have been a Herculean accomplishment; but to support such a large army as was required to meet the advancing Mongols, with so little time for preparation, proved to be an impossibility. The trouble started as soon as an attempt was made to provide subsistence for the soldiers. Taxes on the public lands were increased at first; later the public lands were taken back by the Kin government for the maintenance of the army. Since these lands formed as much as fifty per cent of the total acreage, immense numbers of people who owned no private land whatever lost their means of support.

Pressure of the population on the means of subsistence once more told the story of soil depletion. The government being hard pressed, bore down on the people, who in turn

overworked the soil. The greater the government exigency became, the harder the pressure it exerted, and the worse grew the exhaustion. Conditions went from bad to worse. The country suffered from poor harvests with wholesale desertion of farms as a consequence. Those who had reserves of food hid it for safety. As a last resort, the government tried to obtain all the hoarded millet. The amount was found to be very little, thus proving that scarcity was widespread. Indeed famine had supervened with all its horrors.

The History of the Kin Dynasty says: "the government tried to obtain all the hidden millet in the capital. All the hidden millet obtained amounted to less than 30,000 loads and the capital soon succumbed. From this time on, dead bodies littered the roads and poor and rich alike had to fold their hands and simply wait for death." What was true of the capital was true of the whole country. Everywhere starvation and death held high carnival, and what soil depletion did not accomplish, the devastation of war did. The Kins, with their strength and their resources dwindling, struggled for twenty years against the Mongols. They put up a gallant fight in a losing struggle and the end was inevitable. Thus in 1234 A. D., completely exhausted, they finally yielded, giving place to a new dynasty which later ruled over a reunited China.

CHAPTER V

Yuan and Ming Periods, 1277-1643 A. D.

yuan dynasty, 1277-1367 a. d.

The Yuan Dynasty inherited the economic problems of both dynasties it had displaced and had to begin where its predecessors left off.

Chinese history of the Yuan regime begins with a summary of Mongol enterprises and conquests. Not satisfied with subduing China, the Mongol emperor sent an expedition against Japan. The army sent across the sea must have numbered half a million, for it is recorded that over a hundred thousand were slain or taken prisoners in the attack. Needless to say the expedition was a failure.

In economic affairs the new government utilized every measure ever tried for the encouragement of agriculture and the settlement of the people, so that during the first twenty-three years of the dynasty (reign of Shih Tso) it was claimed that "every family was provided for and every mouth had enough."

Taxes were light, the figures coming down to us varying from one-twenty-fifth to one-tenth load per mow. In fact, the Yuans were always lenient in their exactions, reducing and suspending taxes in different localities and at different times.

The country was thus remarkably well administered throughout the Mongol occupation. It was only towards the end that conditions of insufficiency became serious; but

not even this would have effected the downfall of the Yuans had not rebellions broken out during the brief reigns of several weak rulers.

Despite the light taxes and the successful efforts made for the well-being of the people, loud complaints arose against the "harsh farmers of taxes." The wide-spread discontent manifested itself in the alarming increase of brigandage and spasmodic and scattered uprisings which finally grew to such formidable proportions as to overthrow the dynasty.

A cursory review of the economic history of the Yuan Dynasty will doubtless bring out the causes of its downfall. The Yuans, like the Kins, had the courage and stamina of a conquering people. They had economic resources which were far superior to those of the conquered. Aided by the ablest and wisest leaders that could be found among their new subjects the first Yuan emperors applied those relief and settlement measures that had proven efficacious in the past. The hungry were fed or moved to regions of plenty. Land was turned over to those who had none. Teachers of agriculture were provided. Every new settler got farm implements, seeds and oxen without cost, in addition to tax exemptions. One of the inventions of the time was an irrigation machine, consisting of an endless chain of pedals set in a long box and worked by foot power for raising water for irrigation,—it is still in use all over China. The government ordered the manufacture of a large number of these machines and made it easy for the farmers to secure the benefits of its use.

The Yuans must have succeeded where the Kins and Sungs had failed, to have deserved the historian's encomium above cited.[1]

But a price had to be paid for the benefits conferred by

[1] "Every family was provided for and every mouth had enough" during the first twenty-three years of the dynasty.

a paternal government. Those who were not serving in the army nor plying their trades were bending their energies to the work of food production. While the taxes were very light, still, considering the return of the land, they were a heavy enough burden for the tillers of the soil since the margin of profit was small and was gradually diminishing.

Relief measures, on the one hand, and "harsh farmers of taxes," on the other, were parts of the fiscal and economic policy of the Yuan rulers. The numerous military expeditions, as well as the internal relief administration, required immense sums and were a constant drain on their resources. Accordingly as much had to be squeezed from the people as possible without actually exhausting them. Hence there existed close supervision of farm operations and continual readjustment of taxes.

In case tax assessors or collectors were incompetent or corrupt unjust imposts were laid, which of course would be first felt by the poorer or more depleted provinces and that is why we read about a great famine visiting the northern provinces in the reign of Chen Chung (second emperor). A vast amount of suffering resulted which accounted for the expressed anxiety of the emperor to relieve the necessities of his suffering subjects and his laudable endeavor to curb the rapacity of "tyrannical" governors.

But after the bad conditions were improved brigands in large bands were found in various parts of the country. These bandits were men who had deserted their farms, being unwilling to toil under the "heavy yoke" which the Yuans found it necessary to impose to make both ends meet.

Then a great rebellion broke out in the southern provinces which had chafed under the exactions of the Mongol commander in the campaign against the countries on China's southern border.

To the credit of the Mongol rulers be it said that there

was in various localities a lightening of taxes varying from one-tenth to one twenty-fifth load per mow; reduction in rent by landlords ordered for the relief of the tenant farmers; opening of pasture lands to cultivation; and suspension of various services, besides numerous other relief measures.

But constant changes and readjustments are hard on the taxpayers. In the period under review the suffering was already there before the readjustments took place; otherwise no new adjustment would have been necessary. The constant readjustments simply aggravated the heavy burdens and increased the sufferings of the people whose condition became more and more depressed.

Thus we hear complaints of encroachments by the influentail and well-to-do—these now resorting to grazing since farming was unprofitable. Poor harvests led to famines which grew to alarming proportions as time went on. By the time of Emperor Wen Chung (1328-1332) the discontent broke out in rebellion in Yunnan and adjoining parts of Szechuen; and in 1335, the second year of Shenti, there occurred a famine in which thirteen million perished. Rebellions on a large scale gathered momentum in this reign under the inspiration of nationalism, and an appeal was made to the Chinese people to throw off the foreign yoke. The time had evidently arrived for shaking off the Mongol yoke and Shenti proved to be the last Yuan emperor.

MING, 1368-1643 A. D.

With the overthrow of the Mongol regime and the establishment of the native Ming Dynasty, hope mounted high in the hearts of the Chinese people. It was generally felt that a happier epoch had been auspiciously inaugurated, that the ancient glories of China were about to be revived in a form most pleasing to the national pride, and that the incubus of a foreign domination having been cast off, a great people could rejoice at the dawn of peace and prosperity.

These hopes were doubtless inspired by the late struggle for independence and by the noble character of the Chinese leader whose chief concern was for the protection of life and property within the fighting area. He proclaimed that his sole purpose was to restore to the people their lost independence, and to revive their ancient form of government. In the South the people had hailed the name of their deliverer with acclamations of joy and many hastened to swell the ranks of his army to which had been entrusted the more difficult task of reconquering the northern provinces.

The rise and successful establishment of the Ming line was effected under circumstances that promised a long tenure of power, while the magnanimity and benevolence of the first emperor easily inspired respect and affection.

Nor did Tai Tso fail to live up to what was expected of him. For he immediately initiated plans to promote the welfare of his people. He ordered part of the inhabitants from the densely inhabited sections to move to regions that were sparsely settled. He encouraged the opening of waste fields to intensive cultivation, and the planting of mulberry trees. He established granaries to store food reserves against the time of scarcity. He ordered reservoirs, lakes, and water courses to be put in order for irrigation and drainage. To those needing immediate relief tax exemptions were granted and relief work was conducted in their behalf. That the administration of justice might be facilitated and made uniform, he caused the revision and codification of the civil and penal laws. This work is known as the Pandects of Yunglo, and is comparable to the Code Napoleon. Although he had won the throne by his miltary skill and by victories on the battle field, Tai Tso laid emphasis on the fact that he was a lover of peace, anxious to have his people engaged in the pursuits of peace. He encouraged the development of schools and the cultivation of literature; he restored the

Hanlin College, ordered free instruction for the youth of the land and established free public libraries in the big cities.

It is all the more to Tai Tso's credit that these notable and praiseworthy undertakings were begun during years marked by wars of which the bitterness and severity were undoubted. Only the last eight years of his thirty years reign may be characterized as completely tranquil—undisturbed by civil commotion or external strife.

Those foreign wars which engaged the attention of the emperor during the first twenty-two years of his reign undoubtedly had their baleful effect on the material prosperity of the country. We have seen the economic depression and industrial collapse at the end of the Yuan Dynasty and can easily imagine the condition of the farmers under the new regime. Content to be ruled by men of their own race and enjoying the protection of a paternal government, nevertheless the tillers of the soil found it hard to make both ends meet. The Mongols were gotten rid of, to be sure, but the depleted condition of the soil could not be so readily overcome. The land did not yield larger crops because victory was achieved against a foreign enemy. All warfare for a country situated as was China, however successful and waged for however worthy a cause, constitutes a drain on the public treasury and in the last analysis such drains have to be made up by more intensive labor on the land.

This reflection is borne out by the literature of the time which has come down to us; for although Tai Tso made land restoration his special care and although his relief measures were adequate to cope with disasters and emergencies, still, towards the end of his reign, the appearance of "land-gobbling" families is recorded as well as the hardships of the farmers. Such families were on the increase everywhere, while the condition of the farmers became worse and worse.

With the death of Tao Tso, agricultural matters, instead of progressing from the good start he gave them, gradually turned from bad to worse.

Civil war broke out due to a contest between the heir apparent and his uncle for the throne, and the country was once more the scene of internecine warfare until finally the uncle, Prince Yen, dethroned Hwai-ti and made himself the third Ming ruler, under the title of Chen Tso.

Chen Tso followed Tai Tso's general policy of relief and land restoration, but the treasury showed signs of the heavy drains made upon it by civil war, and one finds in the records of relief distribution markedly smaller amounts given for the individual sufferers than in Tai Tso's time. The condition of production may be surmised from Liu Yen's report on soldier farms that the crops produced by one man in a year were not sufficient to feed himself for half a year. Bad famines were reported from various places and complaints of the spread of latifundia increased, some such estates cited as containing 7000 mows of lake fields—"the rich coveting even ponds and reservoirs, forcibly taking possession of and occupying them either for pisciculture or else to be drained for cultivation." The low production of the land was realized by the rich and poor alike. That it was recognized by the government is shown by the permission given to the people to turn public lakes into farm lands.

The history of Shen Chung, following that of Chen Tso, is a record of strenuous wrestling with the agricultural problem. The main topic of discussion between the emperor and his ministers was by what methods the people could be provided for without the restoration of the Tsing Tien. The final outcome was an edict reviving Tai Tso's program of planting mulberry trees and tilling waste lands. In pursuance of this policy there was repair of reservoirs and

ponds for drainage and irrigation; money was given to needy farmers and free oxen and implements were offered to those who would till waste and fallow lands. Moreover, the government established the Tsai Nong Chang (Farmer Aiding Granary) at this time, and ordered all district officials to see to the preparation of granaries for the storage of government grain. Famines were relieved and farm deserters urged to return.

The crisis was such as to cause apprehension, for, in spite of the above-mentioned efforts and of the abandonment of Tonquin (conquered by Chen Tso) to save expense, the government still had its hands full of relief work, because famines were cropping out in various localities and even continued for many years in the same place. Indeed, the tendency toward diminishing returns seemed to be gaining the upper hand, and a writer of this period, fearful of the future, pointed out that during the Tang Dynasty, Kiangnam taxes were nine-tenths of those of the whole country, but that in his time Chehkiang taxes formed nine-tenths of the Kiangnam levy, and it was five districts in Chehkiang which supplied nine-tenths of the Chehkiang total. "What if the fertile and rich areas should become waste lands as in previous periods?" he asked.

After the ten years of Shen Chung came Yin Chung, whose reign started in the midst of military activities, first in the revolt of Yunnan, encouraged by China's withdrawal from Tonquin. Then, when the Yunnan revolt was repressed, trouble arose with the Tartars, or northern barbarians beyond the Great Wall. The struggle with the Tartars resulted in great loss of treasure as well as men, ending finally in the capture of the youthful emperor by the enemy.

During the captivity of Yin Chung his brother reigned as Tai Chung and throughout his incumbency there was fierce though intermittent war with the Tartars, spreading terror

and desolation in the border provinces of Shansi and Peh Chili. "At the same time there was a great drought in Hopeh ['north of the Hoang-ho River,' comprising Shensi, Shansi, Honan and Chili] and all around for several hundred li the hungry ate human flesh, the able-bodied wandering to other places. The number of those dying on the roads could not be counted."

With the return of Yin Chung from captivity to the throne the country was comparatively quiet, for the Tartars, occupied elsewhere, left the borders undisturbed; but earthquakes and inundations caused considerable loss to the country. Altogether the lot of the rural population was not a happy one, for in addition to their struggle against flood and drought the spread of the latifundia of the wealthy had become more and more extensive and pronounced. They occupied the fields of their poor neighbors by force and shifted on them the tax burden. The grand secretary of the emperor summed up the result of such high-handed doings by saying that all granaries had been destroyed, all government grain used up and all benefits of irrigation either nullified or monopolized by powerful and shrewd individuals. "Hence should there be a poor harvest, the people would have nothing to live on."

The situation demanded quick remedies. Accordingly the government made improvements in drainage, gathered statistics of the wandering, offered them inducements to return and gave relief to the destitute. But all the benefits conferred by such relief measures were counter-balanced by the "Palace Farms" comprising confiscated land set aside to yield income for the empress but destined to become later the great grievance of the people under the Mings and charged by many historians with being the cause of the downfall of the Ming Dynasty. Palace, or Royal, Farms and their upkeep became the pretext behind which imperial

relatives, court favorites, and their satellites systematically robbed the people.

Following Yin Chung, the Emperor Hsien Chung reigned for a period of 22 years during which there was almost incessant warfare, not only on remote frontiers, but in some of the more inaccessible districts of the interior. The foreign struggles and the domestic strife may be said to have interacted on one another; for border warfare with the Tartars of the north, the Miaotze in Kweichow, and the tribes of the Tibetan border depleted the treasury and exhausted the resources of the people, who thereupon rebelled, while the internal troubles caused a shifting of military forces from the borders to the interior and encouraged the "barbarians" to resume activity. In this exigency the government endeavored to fulfill its duties in a creditable and conscientious manner. The usual and time-tested relief measures were put in force again, such as the rounding-up of wanderers, the remission of taxes, the distribution of food to the needy and the making of improvements for drainage and irrigation. Moreover, there was the digging of a canal from Pekin to Peiho sufficiently deep for large grain junks to reach the capital. Confiscation of lands held by religious societies (Taoists and Buddhists) as well as repairs to the Great Wall made possible a large increase of arable tracts.

But on account of poor harvests in adjoining districts scarcity and famine invaded the capital itself and the government ordered one million loads of grain to be sold at reduced prices.

Wars, insurrections and famine ate up the public revenues and embarrassed the treasury which in turn pressed hard on the people. Even the hitherto well-to-do felt the pinch of hunger. An instance in illustration of the financial embarrassment of the government at this time is furnished by the government scheme of operating gold mines in Central

China. Half a million men were engaged in the work, which was expected to produce much needed funds; but the result was next to nothing and many lives were sacrificed in the attempt, principally through a fever epidemic.

In the midst of misfortune and disaster and partly influenced by them, the Imperial Farms developed as an instrument of oppression, thereby aggravatng still more a bad situation. Did the people not complain bitterly against them? Did the administration not issue edicts for their abolishment? Yes, indeed. But what could these avail in such a situation? For with the treasury empty some source of supply must be found, and imperial relatives and powerful personages took advantage of the institution to replenish their private purses. Being unable to grant them funds from the imperial exchequer, was it not natural and expedient for the emperor to allow his courtiers and relatives to maintain their positions by such means?

The conditions during the reigns of the two emperors following Hsien Chung went from bad to worse. There were disorders in remote central Asia to be put down, and there was the pacification of Hainan (in Kwangtung). Next followed uprisings in Szechuen, discontent finding vent in popular uprisings; and in the metropolitan province of Peh Chili and in Shantung bands of mounted bandits levied tribute from travelers and even villages and towns, terrorizing the country for hundreds of miles around.

Relief work was continued but recent disasters had largely increased the number of farm deserters. Besides famines due to flood and drought, there was scarcity due to military operations and depredations of border enemies. Indeed many districts suffered famine continuously for years. Wong Yang Ming (celebrated philosopher of that period) made this comment: "Judging from these conditions we realize there is no way to retrieve the situation by ourselves

(government and people) and at the same time our hope of any help from any of our neighbors on the four sides has already gone." And the desperate nature of the struggle was revealed in the freedom granted to criminals on the delivery of specified quantities of grain to the government granary, and in the use of money derived from fines in Laeotung (Liu Tung) for relief purposes.

From Hsiao Chung to Shih Chung (1488-1505) there was a decrease of almost two million chuans of cultivated fields. Thenceforth the relief afforded by the government became less and less adequate, and the situation grew more hopeless every day.

Starting with Shih Chung the worn-out state of the soil was undeniable. Famine ravaged the country, entailing sufferings beyond description. Many people in Honan and Shensi lived on poon grass for years, there being no harvest; Shantung's once fertile fields were described as waste lands; and in all sections of China red clayey soil (unproductive or waste fields) predominated and extended in endless vistas while the wandering hungry blocked up the roads and dead bodies filled the trenches.

In this crisis the authorities sent out men on rescue missions to care for the homeless, to distribute food and provide shelter. Taxes were remitted and a call issued for volunteers and soldiers to cultivate the waste lands on easy terms.

But, as was pointed out in Tu Shu Pein, " no fertile land has ever been left waste and all land which has been left waste must have been exhausted. When the land is lean, it will require twice the amount of labor in order to secure half the harvest." How much of a yield could be expected from such land as is above described? Moreover, how much could be spared by farmers for improvements when they did not have enough for their own subsistence? In the period under consideration it was acknowledged that " the food supply of

all the people and the six armies was looked for from Kiangnam" (South China).

Moreover, the incursions of the Tartar chief Yenta grew to be an annual event, devastating and ravaging Shansi or Peh Chili with fire and sword. Besides the country was at war with the Japanese who made frequent descents on the coast and even laid siege to Nankin. So the people on the east coast suffered from the Japanese as those on the north suffered from Yenta and the Tartars, and it is needless to say that imperial or Palace Farms continued and flourished at such a time, especially with an emperor on the throne who paid little attention to government but devoted himself to the discovery of the elixir of immortal youth.

After Shih Chung there was an interval of six years under Mun Chung during which there was peaceful settlement of the long standing dispute with Yenta, the Tartar.

As to internal administration the general relief work continued, but the situation was beyond all available remedies to cure, while on all sides there were forebodings of approaching disaster. The reports of poor harvests with consequent famine poured into Pekin. The one submitted by Chen Li was a fair sample. Sent to Chehkiang as supervisor of taxes, he thus reported: "The people of Chehkiang are suffering terribly and they are too busy to save themselves from starvation." Each report eclipsed those previously sent in by its harrowing description of the misery and intense suffering that prevailed all over the empire. May Kuo Jen tells us that even on New Year's Day there was no smoke from the villages and few were found walking about; that everywhere roads were strewn with corpses; and that robberies were carried on openly even in the neighborhood of city walls. But this gruesome picture fails to portray all the horrors of the situation. He proceeds to say: "In face of all this there is no relief. When we want

to take grain from our own district, we find district granaries already empty. When we want to ask district or provincial officials to ship us grain, we find that their granaries are also empty. When we entreat rich families to lend us some of their surplus we find that their supplies are exhausted."

And too well did Chow Hung foresee the consequences. He says:

When the country is rich and the people have plenty, naturally good people are numerous. When the people are poor and wealth is exhausted, then arise the incentive and the temptation to commit crime. At present, east of Wu Tzu (Kiangsu, Anhwei, Kiangsi, Hupeh, Hunan), along the Yangtze and in Honan, Fukien and Szechuen—famine has been frequent and recurring and red land runs a distance of ten thousand li. Hence the lawless will spring up and combine, and rather than starve will rebel against the government. Where one leads, many follow.

When Sun Chung ascended the throne bitter complaints against the Royal or Palace Farms arose, for many had attained the size of one million mows. It was alleged that the emperor had permitted his favorites to seize the people's lands. Accordingly the demand was made that land holdings be limited and that wealth be equalized. "At present the people in the world are extremely poor. Although the government is not able to distribute land and dwellings to the people, shall it sit idle and watch powerful and greedy persons, rich merchants and others, acquire lands and houses without limit?"

The general soil condition was such that it was written: "Even though the years are very good yet the harvests of one year are hardly sufficient to cover the necessary expenses of that year. How can the government expect the people to pay arrears of taxes?" In general one hears much about the heavy burden of taxes during the Ming period, but what

taxes would not be felt heavy and extremely burdensome under the conditions of that time? The hardship of the farmers was tersely and figuratively described by the saying that they "have to cut their flesh to cure their pimples."

The situation was further complicated by flood and drought. The report of an official in 1595 said there were floods in the provinces of Shantung, Honan, Kiangsu, and Anhwei. People were continuously wandering in search of food, and scattering from south to north (south now also exhausted); women and children were sold for trifling sums, babies were thrown away, the aged deserted, robberies were taking place everywhere and many were reduced to eating human flesh.

The conditions thus reported were found duplicated elsewhere. With the government treasury exhausted, adequate relief could not be had. Only 50,500 taels could be spared for the sufferers in Fukien, so the government asked the people themselves to devise and gather means of relief. But inadequate means heightened the discontent without alleviating the distress. Consequently the unrest grew as the sufferings increased, until the people were reduced to the lowest depths of misery recorded in Chinese history.

The ominous forebodings of far-seeing men were about to be fulfilled; there came in Sun Chung's reign the culmination of misfortunes which had been accumulating during the lives of his predecessors. The minds of the people were bent on a change, so everywhere there were riots and insurrections; on all the "four sides" could be found embattled farmers with no better weapons than farm implements but with unswerving determination to destroy the Ming Dynasty.

The invasion of the Tartars (Manchus) at this time need only to be mentioned as one of the premises that led to a foregone conclusion. For although several Ming emperors ascended the throne before the final overthrow of the reign-

ing house was completed, Sun Chung was the emperor who virtually lost the throne to the Manchus. The standards of the enemy were already metaphorically, if not actually, at the gates of the capital, and with his death a formal invitation was given to the Manchu chieftain to enter the country as an ally of one of the rebel leaders.

Much wondering comment has emanated from foreign writers with regard to the conquest by the Manchus. For instance this, from Boulger's History of China:

> Notwithstanding the skill shown in husbanding and developing their strength, they could not have possessed any conceivable chance of victory had the Mings shown the smallest capacity; for the Manchus, unlike the Mongols, were very few in numbers and their recruiting ground was extremely limited. And how a small Tartar tribe succeeded after forty years of war in imposing its yoke on the sceptical, freedom-loving, and intensely national millions of China will always remain one of the enigmas of history. Moreover there is no other case of a people, boldly resisting to the end and cheered by occasional flashes of victory being subjected after more than a whole generation of war with a despised and insignificant enemy, in the durable form in which the Manchus have trodden the Chinese under their heel and secured for themselves all the perquisites and honors accruing to the governing class in one of the richest and largest empires under the sun. The Chinese were made to feel all the bitterness of subjection by the imposition of a hated badge of servitude, and that they proved unable to succeed under this aggravation of circumstances increases the wonder with which the Manchu conquest must ever be regarded.

However, this enigma of history is easily solved if we know the conditions which led up to it. As the event was without a parallel in history, so were the conditions of suffering and misery which prevailed at that time. The people had faced utter destruction during many dreary years before they finally succumbed.

CHAPTER VI

Modern China, 1644-1921 A. D.

TSING DYNASTY, 1644-1911

WHATEVER may be said of the subjugation of the Chinese by the Manchus, it cannot be denied that these Tartar rulers did much for the prosperity of their conquered country.

It must be admitted, however, that less than half of the population remained to enjoy the change so that the relief problem was not so formidable and the success of the Manchus in solving it may be discounted.

Nevertheless, credit is due them for their liberal policy and the solicitude they displayed for the welfare of the Chinese millions. Although occupied constantly with the completing of their conquest, yet within sixty years from the beginning of their dynasty they had restored prosperity and contentment to the realm, the wanderers had been rounded up and peacefully settled, and Kanghi ruled a contented people actively engaged in peaceful pursuits.

Let us examine the details of this accomplishment. The resources which the new dynasty commanded were considerable. We remember that the situation at the end of the Ming Dynasty was desperate because not only was the government treasury empty, but hope of help from the outside could not be entertained owing to the hostility existing between China and her neighbors.

When the Manchus came upon the scene the circumstances were quite different. They were backed by the resources of their own Manchuria, and as results of the military

achievements of Kanghi's generals they received tribute from several conquered countries. More important was the opening of trade routes between China and the other domains of the Manchu emperor. Furthermore, the beginning of extensive commercial intercourse with Europeans was witnessed in the reign of Shih Tso, the first Manchu ruler to occupy the "dragon throne." The visits of several European deputations to the imperial court at Pekin were an encouragement and an invitation to adventurous Chinese traders to begin a campaign of commercial penetration into all the adjacent countries.

In their economic administration the Manchus adopted a policy whose object was not only immediate relief and recuperation, but also a permanent cure for land troubles. Thus it was their policy to encourage the cultivation of waste lands, to make an accurate survey of all land holdings and to ascertain the number and condition of farm deserters and to grant them relief according to their needs. As for improvements—they adopted a general plan for drainage and irrigation, but varied its application according to the locality. This is borne out by the edicts published—documentary evidence of the care exercised and the attention paid to the various specific problems in hand, which care and attention insured conservation of energy as well as effectiveness in execution, for everyone admits that careful analysis of a difficult problem is half the solution.

In addition to careful planning for the future Shih Tso met the pressing needs of the present by repealing the extra taxes resorted to in the Ming period and prohibiting the seizure of the people's lands and houses by the government officials or powerful and rich individuals. He granted money from the treasury for the relief of famine sufferers and ordered their taxes remitted. The usual inducements were offered to settlers on waste lands but the amount or

degree of encouragement varied according to the needs of each locality. Local officials were rewarded or punished according to their success or failure in opening waste lands to cultivation; the planting of mulberries and willows was enjoined and the killing of oxen which could be used for farming purposes was forbidden.

Those who had wandered away during the famine were given tax exemptions, and aid to return to their homes. Even fields that had been trampled on by the soldiery were tax exempt.

Aside from the opening of waste lands for tillage we also find petitions made for grants of land for pasturage. This was to be expected because the Manchus hailed from a grazing country and were devotees of the chase. Doubtless grazing was the best use that worn-out lands could be turned to: still the amount so used was limited because it was the policy of the administration to speed up agricultural production as much as possible.

The economic policy initiated by Shih Tso was amplified and enforced by Sun Tso or Kanghi. Farmers were required to report to the officials whenever misfortune or disaster overtook them. After an investigation conducted by the officials, needed relief was at once applied. The fostering care of a paternal government was extended to the tillers of the soil even during the growing period. Officials were always accessible to them for advice and instruction.

New settlers particularly were the objects of government solicitude. Specials officials were designated by the government to render help, to advise, to admonish and to encourage. The people were urged to cut down unneccessary expenses and to save for the proverbial rainy day. The authorities were especially liberal with tax exemptions—often granting them in anticipation of trouble. Thus, finding that the farms of Shantung were cultivated largely by tenant

farmers, a special edict went out ordering landlords to pass the tax exemptions on to their tenants in the form of reduced rentals.

Elaborate preparations were made to counteract the effect of bad years with consequent scarcity and famine by the building of granaries all over the empire, and the people were called upon to suggest new methods for emergency relief.

A large part of Sun Tso's reign of more than sixty years was taken up with military expeditions and the execution of plans for the extension of the empire, causing large expenditures of men and money for their successful prosecution. First of all, China itself had not been wholly pacified; then the Mongols had to be subdued; and lastly there were border wars with the Russians on the northern frontier, and with the Eleuths and the hordes of Central Asia to the westward. The seriousness and magnitude of these campaigns may be judged from the facts that the war with the Mongols alone lasted from 1670 to 1697 and that the solders sent aggregated a milllion.

In 1679 an earthquake occurred in Pekin which caused three hundred thousand persons to perish and thirty thousand more in a town twelve miles distant.

Thus Kanghi and his ministers were kept busy in devising ways and means to meet the expenses of domestic administration and foreign wars. That the results fully justified the vast expenditure may be seen at a glance from the following summary: (1) China Proper was wholly pacified; (2) the Mongols and Khalkas were confirmed in allegiance; (3) The Eleuths and the hordes of Central Asia were driven back where they could not disturb the Chinese frontiers; (4) Thibet was annexed; (5) Korea's friendship was assured; (6) Formosa was pacified; and (7) the Japanese were overawed.

Kanghi's aim, as expressed in his own words, was: "One vow have I resolutely made and that is to bestow the blessing of peace throughout this vast territory over which you have placed me." The successes of his generals and the conquest of adjacent countries furthered this purpose and the grand result assured, was the security of a mighty empire and the prosperity of an industrious people.

While the establishment of a stable peace within and without was eminently desirable and important the economic results attained were equally notable and advantageous. Among the latter may be mentioned the tributes from the conquered countries, the possession of Formosa, formed by nature to be "the granary of China" and the freedom of trade throughout Eastern Asia.

Taking up once more the economic policy of the Manchu government, we find that soldiers of every section of the empire were settled on farm lands and given the task of food production. The proportion of soldiers thus put to work to the civilian farmers may be seen from the statement that out of 6,078,430 chuans in the total of cultivated fields of the country at that time, 307,872 chuans consisted of soldier farms.

And not only waste land was put in order for cultivation, but new land was opened, and volunteers were called to cultivate pasture lands outside of Yu Lin City. During the 30th year of Sun Tso's reign agricultural experts were chosen and sent to the newly conquered regions with seeds, farm implements, oxen, etc., to open and cultivate new fields.

Sun Tso's or Kanghi's reign may be characterized as an era of agricultural or economic regeneration during which China made rapid strides toward the attainment of material prosperity. The country became an immense hive of industry, for the government was not interested in agriculture alone but in manufactures also. Evidence of this is fur-

nished by the edict giving tax exemption to textile and dye industries on account of the failure of crops of vegetables which were used in the making of dyes.

Foreign commerce was given a great impetus during this period, and China had commercial relations with the English at Canton, the Dutch at Formosa and the Spaniards in the Philippines. In 1716 there was an edict prohibiting the export of rice with the object of conserving the food supply of the people—the export of rice having attained considerable dimensions.

Besides these specific cases of commercial intercourse with the three nationalities mentioned, there was undoubtedly more or less exchange of commodities, although on a small scale, along the various borders. The arrival of the Russian Embassy at Pekin in 1719 was significant of the interest that Peter the Great took in promoting trade between the two empires.

Kanghi's reign lasted 61 years; and though in the beginning we read about farmers leaving their farms and about bad conditions due to flood, drought, insect pests, etc. —the situation on the whole was never like that at the end of the Ming Dynasty. For no more is heard in the reports of starvation over a vast area since the government took quick action to meet the crisis in every instance.

In the thirty-second year of Kanghi's reign it was said that "all the wandering people from the four directions have gradually come back to their native places" and from that time on no more was heard of a large exodus of farmers. Kanghi ruled over a contented and thriving nation. The country prospered and the people were happy. The population consequently increased.

The increase of population was so great as to call for a special edict dealing with the subject in the forty-sixth year of his reign. However, Kanghi concluded, in pursuance

of his enlightened policy, that he would cut down the expenses of the government and thus be better prepared to help sustain the increased population.

Still more characteristic of his benign administration was his decree, issued a few years later, to the effect that since the treasury was full, thenceforth the tax levy would not be higher on account of the growth in population but would remain the same as heretofore since an increase in population did not mean an extension of arable land to support it.

The outcome of eighty years of good government during the Tsing Dynasty may be seen by contrast with the desperate conditions that prevailed in the latter part of the Ming regime when a small outlet was provided for the people by emigration to the Philippines. Hard pressed at home, the Cantonese and Fukienese flocked to those pleasant islands. But the Spanish conquerors of the Philippines became so alarmed at the size of the Chinese settlement that they formed a diabolical plot to massacre the strangers and executed it without meeting any resistance. The Ming government simply ignored the horrible incident. Indeed it was not able to exact retribution nor demand redress even if it would, so beset was it with internal problems. Thus the fate of any Chinese who afterwards ventured to those islands was not difficult to foresee. But what happened after the fate of the first Chinese settlers became known? Just as many Chinese immediately flocked there to take the place of their unfortunate compatriots, glad to have a chance to make a living and ready to risk massacre because it meant sure death by starvation if they stayed at home.

The material prosperity of Kanghi's period naturally made for developments along other lines, the development of literature occupying a large place in the history of the

period. Kanghi was himself a writer of high attainments, his writings comprising 100 volumes. The Kanghi Dictionary, a prodigious work done under his supervision, is still the authority used in our time. Aside from pure literature there was growth in geographic and scientific knowledge. Especially in knowledge of the Empire itself was there very marked advancement, many new and corrected maps being published at this time.

The third Tsing ruler was Shih Chung, the fourth son of Kanghi, and his reign was styled Yung Ching. As he was already a staid man of middle age when he ascended the throne, he did his duty by following the policy of his father and strove to keep the empire as prosperous as it was when transmitted to him.

But great calamities befell the country in his reign of 16 years. Extensive floods devastated vast areas causing scarcity of food. Then a terrible earthquake shook Pekin and almost wiped it off the map so that the emperor himself was obliged to camp out. However, the exchequer being full, the authorities had no difficulty in giving needed relief to the sufferers.

There were also troubles in Central Asia which might have called for military expeditions to be sent there. But Yung Ching wisely held back, and recalled even the troops which were on the scene.

Thus the settled condition within the country was not disturbed except by the floods and the earthquake mentioned above. Moreover the effects of these were counteracted and the localities were in time restored to their former tranquility.

But this very prosperity and contentment engendered a serious problem, namely the large increase of population. In provinces like Yunnan and Kweichow it brought about an alarming situation because of the limited supply of rice.

Following precedent Yung Ching ordered a distribution of the waste lands among the poorer classes. It will be remembered that at the beginning of the Tsing Dynasty almost all the land was waste and the agricultural people had to restore its fertility with the aid of the government. The fields so reclaimed and rendered productive were chiefly instrumental in bringing about material prosperity. But there were still waste lands left which had not been developed in the early Tsing days and which remained idle on account of the expenses incidental to their restoration including the fees asked by the governors and district officials, since the former government aids, etc., for opening waste lands had been withdrawn for some years because the policy was no longer deemed necessary. So Yung Ching encouraged the cultivation of this waste land by removing the official fees, by giving tax exemption for six or ten years according to the condition of the soil, and by giving free use of plowing animals until after the harvest. With the first payment of taxes thereon the people were given deeds for such reclaimed lands. In the words of the edict; "It is the aim of the government that there shall be no unoccupied or uncultivated fields in the country, that every family and individual shall have plenty, and that the people and the community shall enjoy affluence."

In addition to the reclamation and cultivation of waste lands, a policy of intensive cultivation was prescribed for all fertile lands throughout the country. The most industrious and successful farmers were rewarded with honors and decorations in order to spur others on to greater exertions. In many parts of South China two crops of rice were raised annually. In order to allay apprehension lest the price of rice would drop too low because of the greater crops, the government promised to use treasury funds to buy grain so as to make production more profitable to the farmers.

Yung Ching died suddenly in the 16th year of his reign and his work was taken up by Kao Chung or Chien Lung. The population problem became serious as the number of inhabitants grew by leaps and bounds. Thus in 1736 when Chien Lung came to the throne according to official estimates it was sixty million; in 1753, one hundred million, and in 1792 it had grown to three hundred million. Exaggerated though these later estimates doubtless were, they nevertheless indicate conclusively a very rapid rate of growth.

Already Yung Ching's policy had developed the waste lands and made for more diligent work on the fields. But now, with the pressure of a growing population working a limited area, Chien Lung's only plan left was to "expand the strength of the people on the large territory"—or, in other words, his was a policy of intensive agriculture to the highest degree. We can also see the pressing need as stated by the edict of 1740, for the cultivation of all the odd pieces of land in the more elevated regions as, for instance, "on top of mountains, or at the corners of the land" whether "suitable for rice or for miscellaneous crops." These lands were to be given free to the common people, "the taxes levied to be very little, if any, while no matter how little return the people may receive from cultivation of these lands, it will be always helpful in adding to the food supply." Thus intensive agriculture in China as we know it dates back to the Chien Lung period.

The first ten years of Chien Lung's reign were years of great internal prosperity, the predominant characteristic being general prevalence of peace with the accompanying satisfaction and economic progress of a thrifty people.

But the period of external peace soon ended, and Chien Lung's attention was engrossed in a campaign of conquest in Central Asia; in wars with the Burmese on the Yunnan

frontier and with the Miaotze on the Szechuen and Kweichow border; and in wars in Thibet, Nepaul and Formosa. After Formosa was pacified, a movement was started in Szechuen to put a Ming pretender on the throne.

In all these breaches of peace, foreign or internal, Chien Lung displayed his power and vindicated his authority, for China was a strong and prosperous country and the Tsing Dynasty was in its prime.

But that the Tsing Dynasty had already reached the zenith of its power and was even beginning to decline was seen in the evidence now pouring in from all sides.

Famines came, consequent on the increase of population —a necessary and inseparable penalty in a country dependent entirely on its own resources, and where the population, however thrifty and energetic, suffers periodically from visitations of flood and drought. On several occasions, especially towards the end of the reign, the northern provinces were desolated by ravages of famine when in the course of a few weeks districts as large as English counties were depopulated, and all efforts of the local auhorities to provide relief were paralyzed. The emperor ordered free distribution of grain, but the remedy was inadequate because of the extent of the suffering and the peculations of the officials. In 1785 a state of dearth prevailed throughout the greater part of Central and Northern China, the detailed accounts of which according to European eye witnesses include horrors which have seldom been surpassed in gruesomeness.

In 1780 Chien Lung adopted a scheme for the proper control of the course of the Hoangho (Yellow River), for although the ravages committed by this river in flood time had been less for one hundred years than during any previous epoch, that river's condition in Chien Lung's time left much to be desired. Chien Lung's reign closed in 1795

and with it closed the period of Manchu greatness, for when Chien Lung released his hold upon the sceptre, Manchu power was already on the decline.

However it must not be supposed that the country at once sank into decay. For although forewarnings of coming trouble began to appear the material prosperity of the people was probably greater during the first fifteen years of Ren Chung or Jar Tsin's reign than ever before or since. Foreign trade was growing every year despite the restrictions upon it; in 1812 the census returns showed the population as 362,447,183.

Jar Tsin was a ruler interested in his own indulgences rather than in the welfare of his people, hence various disturbances broke out shortly after Chien Lung's death. There sprang up the "White Lotus" and other secret societies whose object was anti-dynastic and which enrolled many inhabitants of Shantung, Honan and Shensi as members and also the "Society for the Propagation of Celestial Reason" which represented the discontent of the people with foreign domination. Their members hesitated at nothing, for some even made attempts on the emperor's life. But the people as a whole were not willing to resort to extreme violence. The people were not contented, but they were still able to obtain their own subsistence, and thus occupied, they felt no inclination to disturb the tranquility of the country by taking up arms against their Manchu rulers.

During the last four years of Jar Tsin's reign, a large part of the country was visited by a severe famine and there was also an overflow of the Hoangho. When Jar Tsin died in 1820 after a reign of twenty-five years he left to his successor a diminished authority, an enfeebled power, and a discontented people.

The weakness of the central government did not affect

the people, for the daily life of the masses was not disturbed by revolts of savage tribes or unsuccessful campaigns in the interior. Engrossed in their struggle for existence they paid no heed to the blunders or misfortunes of the sovereign. But the dearth in Shansi and the overflow of the Hoangho—these came home to them with the force of a real affliction; but it must be remembered that on account of the general prosperity the greater portion of the country was undisturbed, and the people continued to develop their agricultural resources. If left in security to themselves, they would till every kind of land and would raise on it some kind of a crop. They drained the swamps which became rich pastures, and they terraced the slopes of the mountains. Neither were they less skillful as traders; the deficiencies of one province were supplied by the abundance of another, and the luxuries of the capital were furnished by all accessible markets. It is for this reason that the influence of the "White Lotus" and other secret societies failed to bear fruit in this reign—for when they attempted to incite the people to violence and rebellion, the majority of them held aloof.

In no other country in Asia, and in but few countries in the world, do the people themselves form the national strength more incontestably than in China. Under its civil service system the ranks of officials are filled by educated men who owe everything to themselves and not to the accident of birth. There is no office not opened to the humblest. This is enough to give stability to any political and social system and largely explains why the Chinese endured Manchu domination for 270 years.

Jar Tsin was followed by Siuen Chung or Dow Kwong who reigned for a period of twenty-nine years (1821-1850). Dow Kwong cannot be said to have neglected the welfare of his people but his reign was marked by calamities and disast-

ers. Inundations in the province of Peh Chili were followed by a season of drought. The government did the best it could to alleviate the prevailing distress, and a fixed allowance was made to those in a destitute condition; but the suffering was so intense that the emperor gave up his annual visit to Jehol. The intensity of the suffering during the famine that followed was proved by the increase of crime in the capital and throughout the country. Robbery was a common occurence as well as forgery and counterfeiting; and the only effectual treatment for this social disease consisted in providing those in absolute want with means of subsistence, thus adding greatly to the embarrassment of the straitened government. The amount of suffering with loss of human life is almost incredible if stated in bald figures. But as the population was rapidly increasing to excess, such sweeping calamities seemed to be a providential check to overpopulation.

Sporadic riots occurred in Szechuen and Kansuh, and a revival of piracy was reported on the Canton River. In 1834 there was a big deficit in the government finances, the insurrections and the military operations necessary for their suppression having resulted in a great increase in the expenditures of the government. Also the natural calamities had caused a diminution of revenue at the the very moment when a full exchequer was needed to meet the requirements of warlike operations in several distant regions.

In relief work the emperor's energies were laudably conspicuous, no means being spared by him to mitigate suffering and to anticipate the recurrence of natural calamities. The deep interest in the people's welfare displayed by the emperor seemed to have made the secret societies quiescent during the first part of the reign. But on the other hand there was growing discontent of a large section of the people due to lack of work and scarcity of food.

In Dow Kwong's reign was witnessed the beginning of foreign complications. The First Opium War in 1842 resulted in defeat for China, which had to give up Hongkong, to legalize the opium traffic and to pay an indemnity of $21,000,000. The need for increased revenue to pay the indemnity only aggravated the popular discontent. There were frequent inundations of the Yellow River and an alarming spread of banditry which terrorized the country. Internal disorder and agitation were sure symptoms of decay, such as the outbreaks of the Triad Society in Northern Kwongtung and of the Green Lotus Society in the central provinces of Hunnan and Hupeh, ravages of pirates on the coast of Formosa, Fuokien and Chehkiang and uprisings of the nomadic tribes in Central Asia.

When Siuen Chung, or Dow Kwong, died in 1850 he closed a reign of unredeemed failure. The weakened government henceforth got perfunctory and grudging obedience from its people. In its efforts to secure increased revenue both for indemnity purposes and for increased expenditures for the army and navy, the government had to contend against the peculations of the official classes.

The name of the next reign is significant of the conditions existing at the time of Wen Chung's elevation to the throne. Hsien Fung, or "universal abundance," the name he adopted, expressed a desire rather than a fact, for there was country-wide dearth and widespread distress, so that everyone agreed that general plenty was the one thing needed to put the country on its feet.

That it might merit the longed-for plenty and prosperity, the administration under Hsien Fung strove energetically to alleviate the general distress, and by means of voluntary subscriptions from the well-to-do, stimulated by the promise of official honors, the more pressing wants of the population were supplied. For a time it seemed indeed that better

times were ahead under the new emperor. The next growing season was exceedingly favorable, and abundant crops contributed to rapid recovery from the depressing condition to which a large part of the country had been reduced. Also a new outlet was offered to the surplus labor of South China in emigration to the newly discovered gold fields of California.

But this hope of better times proved illusory and was soon to be dispelled; for the Hsien Fung period was one remarkable for its natural as well as political calamities. There was an earthquake in Szechuen which inflicted immense loss of life and property and widespread consternation; Canton, one of the treaty ports, was largely destroyed by fire in October, 1851; and a severe famine in the metropolitan district compelled the cabinet to vote large sums for relief.

These natural calamities upset the ordinary course of administration as the energies of the government were concentrated on counteracting their effects. Consequently official corruption grew in extent and audacity, unrestrained and unchecked; justice was sold to the highest bidder; offices were sold to the illiterate, who recouped themselves by "squeezing;" and the nation was ground under heavy taxes, the larger portion of which went into the pockets of the officials. While the government lost its efficiency through having to depend on a corrupt mandarinate, it sunk lower and lower in the estimation of the people.

The body politic was suffering from a disease which was eating into its vitals and was beyond ordinary remedy. Smouldering discontent at last broke out in open rebellion which before it was finally suppressed involved all China Proper south of the Yellow River.

For fifty years the provinces had witnessed riots and isolated uprisings but never anything that could be dignified

with the word "rebellion." This time the movement was so widespread and had gathered momentum so rapidly that there was no mistaking its character or its purpose, which was to destroy the Manchu Dynasty.

While the country was in the throes of revolution, the government came into open conflict with England over trade matters. This is called the Second English War. While its duration was short and its operations were confined to the seaboard it disturbed the places which were the scenes of conflict and resulted in the burning of Yuen Min Yuen or the summer palace by the British expeditionary forces. The treaty of peace imposed by the victors riveted the devilish opium trade on a helpless nation.

However, the significance of this foreign war was soon overshadowed by the progress of the Taeping rebels. Starting at first in Kwongsi the rebellion spread eastward into Kwongtung and Fuokien and northward into Honan. The rebel armies, increasing in numbers at every turn, marched through the valley of the Yangtze, plundering and massacring everywhere they went. Having seized Nankin, the rebel leader Hung Sow Chuen made it his capital and proclaimed himself emperor. From Nankin they carried fire and sword into the provinces of Anhwei, Chehkiang and Kiangsi and captured Hangchow, Soochow, and Shanghai, in which seaport they were close to the foreign settlements.

Whether the Taepings or the Manchus were to rule China was a question hotly debated by the foreigners in China who took a deep interest in the struggle. Some took one side and some the other, the majority favoring the Taepings at first. But their indiscriminate killings and their open opposition to the opium trade turned the majority of the foreigners against them. The government forces under the leadership of Tseng Kwok Fan and Li Hung

Chang, having the effective aid of "Chinese Gordon" and the Chinese soldiers he had drilled, finally suppressed the rebellion in 1864.

Hsien Fung's reign was a short one, lasting ten years (1851-1861), so it was left to his successor Mun Chung to witness the final overthrow of the Taeping rebels. But as the name of his reign, Tung Tsi ("union of law and order") implied, there was much to be desired in the matter of law and order throughout the country.

The close of the Taeping Rebellion did not mean the complete restoration of peace and order, for there were two more rebellions, known as the Mohammedan Rebellions which had to be suppressed—one in Yunnan and the other in Shensi and Kansuh. Both of these had commenced when the Taeping was in full swing, and continued for many years after its suppression, the areas involved and the devastation caused being no less important although the inferiority in numbers of the Mohammedans made their subjugation a mere question of time. No possible political or economic benefit could result from the Mohammedan revolt. As a matter of fact the prosperity of Yunnan, which at one time had been far from inconsiderable, sank to the lowest possible point and although peace was gradually restored in this part of China, it was long before prosperity followed in its train.

Mun Chung died in 1874 and Der Chung, or Kwong Sui, ascended a tottering throne. He found the empire pacified but still suffering from the effects of the civil wars. These, together with continued drought, were the causes of poor harvests and great scarcity in Honan and Shansi, and suffering was general over the whole of northern China. The ensuing famine was surpassed only by the present famine. The multitudes that perished from cold and hunger were reckoned by the million.

The conditions during the forty-odd years which have elapsed since 1874 are too well known to need elaboration.

There has been a steady growth in foreign trade, although until very recently a large portion of China's surplus products has been exchanged for opium. The system of communications has been vastly improved—first by the use of steam vessels and within the last twenty years by railroads. With the introduction of foreign innovations and methods of mining and manufacturing there have come foreign debts and concessions to foreigners with all the complications that follow in their train. The Boxer protest, against foreign domination, alone cost China over two hundred and fifty million dollars.

THE REPUBLIC

With regard to internal administration, there has been revolution, the Manchus have been driven from the throne and a republican form of government has been set up in its place. But the welfare of the masses certainly has not improved. The farmers have done well, and have year by year gotten all that was possible out of the soil. Their marvelous industry and patient endurance have availed to develop a state of material prosperity which after the unprecedented calamities of the Hsien Fung period would have been thought impossible. But their struggle is one of desperation. They have been driven to the lowest straits—working from sunrise till sunset, yet are barely able to provide themselves with the necessaries of life, not to speak of putting aside any savings. Theirs is a hand-to-mouth existence, so that when a natural calamity befalls them, such as flood or drought, or even a poor harvest from any other cause, their plight is a sorry one.

Such is the condition at this very moment. There has been drought and the five provinces affected are in the

grip of famine. Thirty millions are affected. The death toll of the Great World War was seventeen millions; but the number doomed to die of starvation in China this year may be fifteen millions. Reports tell how the trees of entire districts have been stripped of their leaves for use as food. Thousands of refugees, who are endeavoring to migrate afoot from the famine areas, are said to be living on such "food," hoping to reach more fortunate cities and towns where they may possibly purchase the necessaries of life. Every road northward from Changteho in Honan swarms with hunger-pinched people, many of whom fall exhausted out of the weary procession to die by the roadside. And the many districts denuded of vegetation look as if they had been swept by a plague of locusts. There are suicides of entire families, and in the Pekin district alone, one thousand deaths were occurring daily as early as November last. When the biting storms of winter set in, the sufferings of these millions were too intense for human tongue to describe.

The conditions in 1878 were less serious than those at present, for at that time a good wheat crop preceded the drought, whereas today, due to two years lack of rainfall, only limited areas have produced even the scantiest yields. What is going to be done? Efforts which have been made so far (February, 1921) include the following: The Chinese Ministries of Finance, Agriculture and the Interior have appointed a commission to dispense a $1,000,000 fund raised by a short-term loan; Shanghai reports that another fund of $1,800,000 is being raised by seven provinces; the Japanese Government has donated 500,000 bushels of rice. In addition, representatives of American and British commercial interests in Shanghai have raised $5,000,000. for the Chinese Famine Relief Fund. The American Red Cross has appropriated a large sum for relief.

Granting that the relief funds so far available amount to ten or even fifteen million dollars they are hardly adequate to meet the emergency. America alone with its surplus wheat and corn is in a position to save the famished millions of China.

According to careful estimates at least 15 millions are doomed to death by starvation—a tragedy unsurpassed in the history of the world.

The above statement does not by any means tell all the horrors or the whole situation. This suffering of the thirty millions is only a warning. There are many millions more who would be threatened with the same fate should flood or drought occur in any other part of the country.

Clearly this is the last call for quick remedial measures. There must be adopted and enforced a vigorous policy of agricultural restoration. Help and instruction must be given our farmers, and mineral fertilizers and improved methods of culture must be introduced. For not only must our soil productivity be maintained, but it must be improved, and improved many-fold. The country must be made self-sustaining.

But no matter how thorough and well-learned are the lessons in practical farming, how effective the help extended by the government, how useful the commercial fertilizers as aids to production and how time and labor-saving the improved methods, still all the factors will be useless when confronted with an extensive flood or a long-continued drought in averting a famine or counteracting its dire effects. We cannot prevent a drought, but we can improve our irrigation works. As for floods and especially the annual overflow of the Yellow River—extensive public works must be undertaken to the end that the rivers may be deepened and dykes built on the banks of the Yellow River

so that "China's Sorrow" may be converted into China's blessing. I understand that preliminary work has been done to accomplish such desirable results under an American engineer. How to finance such a vast project is the only question left for consideration.

To counteract or mitigate the effects of bad years due to drought or insect pests, the only effective remedy we know of is the building of more railroads. For this purpose a loan of $30,000,000 has been offered by the so-called Chinese Consortium to the Chinese Government.

While putting agriculture on its feet let us not forget to encourage the development of our manufactures and the opening of our mines. Let our industries be diversified, remembering that an exclusively agricultural country will always be a poor country.

After all these things are done, granting that peace, plenty and prosperity attend and follow the completion of such an economic program, have we solved the problem of China's teeming millions? By no means.

Ever since Chien Lung's time China has suffered from over-population. Our record has shown that after every prolonged period of peace and prosperity there has come a large increase of populaton. It cannot be supposed that what was barely sufficient for 200,000,000 will support 400,000,000 in comfort. If Malthus were alive to-day he would point to the condition of China's dense population as conclusive support for his theory. He might be pardoned for pointing to the present famine as a natural check to over-population.

But no humane person would admit the necessity of such a check as famine when other measures could be and should be tried first. It is beyond the scope of this dissertation to go into a discussion of this question; nevertheless, the problem of increasing population lies at the root of every other

economic problem in a country like China and its solution will constitute the foundation for the future welfare of the Chinese nation.

RECAPITULATION

Since the end of the Sui, and the beginning of the Tang Dynasty we have gone over another big span of the bridge of Chinese history. This span covers a period of about 1250 years. It is similar to the preceding period already reviewed in several important features, though necessarily different in minor details. There is the same alternation of prosperity and depression in agricultural affairs, the same attempt to revive the Tsing Tien System of land tenure without success, because with increase of population and changed conditions, both of society and of the land itself, it had ceased to be practical; and lastly, there is the same influence exercised by the condition of agriculture on politics. We find also that dynasties fell after a series of short harvests with consequent famine and civil disorder, and their duration was prolonged by honest and painstaking administration of agricultural affairs, which resulted in prosperity.

The tendency toward latifundia was the same in this as in the previous period and in both cases it was checked by the government with a strong hand.

As is to be expected, land exhaustion was more painfully evident during the last thousand years than during the previous thousand and the efforts put forth to counteract it were more strenuous and generally more effectice on account of the great advance attained in agricultural knowledge.

Soil depletion is like all natural tendencies. If uninterfered with, it runs its course. But we may counteract it and arrest its development. Agricultural science has fur-

nished us the means of so doing. Thus, by rotation of crops, by fertilization and by the other expedients of scientific agriculture we may check the tendency to depletion.

In the early history of the human race, when agricultural knowledge was rudimentary, no attempt was made to prevent soil exhaustion; and none was necessary since virgin soil could be found by moving from one place to another. But in later times, even when agricultural knowledge was quite advanced, we have run across evidences of soil exhaustion. Evidently this was due to circumstances over which the farmers had no control.

The farmers of imperial Rome understood fertilization and irrigation and all that was meant by land restoration. We have evidence of their full knowledge of the subject from the many treatises that have come down to us.

But the Romans were not able to turn this knowledge to good account because of the keen competition of Sicily and Egypt. With imported grain underselling the domestic product the Roman farmers of course did not thrive. Nor could they invest capital in improvements since all land improvements require outlay of capital.

But a farmer who does not make expenses has no capital to invest; and if he borrows it he risks the loss of his farm.

Thus, in the case of Rome, soil depletion set in through lack of means to counteract the tendency; and the inability of her farmers to maintain themselves resulted in the movement to large estates.

Similarly, in China the law has acted with equal force, but with this difference, that foreign trade has not so far accelerated its downward movement.

In our early history we had soil exhaustion as a result of ignorance. Then some bright mind discovered that fallow land will under favorable conditions in time recover its

productivity. This idea was of limited application because of increasing population.

So the pressure of population on the margin of subsistence made necessary a more intensive working of the land. The greater the increase of population the greater the demands on a limited land area and the faster did the soil become exhausted.

Hence, as we have already intimated, all that improvements in methods of cultivation and the counteracting of the effects of natural disasters can accomplish is of a palliative character—simply postponing the evil day, unless we solve the problem of overpopulation or provide through the development of manufactures or otherwise the needed outlet for our surplus population.

PART II

SELECTIONS FROM SOURCES

FOREWORD

As mentioned in the Preface, these source selections cover the field of agricultural economic history as treated in the works mentioned in the Chinese Encyclopedia. With each passage or selection are given the name of the source or reference from which it is taken, and such information concerning the same as is deemed necessary in each individual instance, such as a translation of the title, facts as to the author, the date of the work, etc.

To avoid duplication and for the sake of brevity, where very similar passages occur in two or more works, these have been combined by rendering the passage from the first work and adding whatever is new from the phrases or sentences of the others. Such is the case where more than one authority or reference is given for a single passage.

Similarly to avoid repetition, the entries in the records of government relief have not been reproduced in full. However it is only the duplicate types of cases which have been omitted and all the characteristics of each record (each dynasty and emperor) have been faithfully preserved in the condensed translations given.

Most of the selections have never been translated before. The policy observed in the present translation was to give a true rendering of the words and spirit of the originals. English smoothness and rhetoric have been subordinated to literal rendering, except in the few instances where rearrangement of phrases, etc., was necessary for the giving of the correct rendering. This has been done in order to preserve the archaic flavor and the purity of the original for research students without coloring or interpretation. Comments and explanations by the author, unless placed in footnotes, have been in every case enclosed in parentheses.

The passages or selections, as given, have been arranged in the proper chronological order according as the events transpired; and they will be found not only to be under the proper dynasties and emperors, but also to be arranged in order under topics and the events of the particular emperors whenever possible.

Thus it will be seen that this Part II in itself constitutes a History of Chinese Agriculture and Administration in literal translation, complete and unprejudiced, from the original sources, together with comments and explanations by the present writer. It is the source material of which Part I is a commentary or interpretation, and forms the complete source for research work on the question of agricultural economic history in China. It is for the purpose of bringing these sources within the reach of future students that they are here published.

CHAPTER I

Pre-Chow Period

I. *Huangti, 2698-2599 B. C.*

Reference: Ai Ki; also Do Yu Tung Din.

Emperor Huangti established 10,000 states, each of 100 li square, by outlining the fields into different divisions. He ordered the laborers and workmen to construct the cities for the states. He then divided the fields into "tsing" with the measurement of "pu" and "mows," so as to stop disputes and prepare for any emergency of insufficiency. He made eight families into one tsing; each tsing being provided with four roads to lead to the eight houses. One tsing was the unit, which was called one "lin" (neighborhood); three lins made one "pung" (friendship); three pungs made one "li" (village or community); five lis made one "yi" (district or town); ten yis made one "tu" (county or center); ten tus made one "shih" (army, division or prefecture), and ten shihs made one "chow" (state or province). The whole system was built up from one tsing as the unit, and completed as one chow. Therefore everyone was satisfied to settle down on the fields.

II. *Emperor Yao (Yao and Shun), 2357-2261 B. C.*

Reference: Shu King (Canon of History).

Emperor Yao ordered Great Yu to control the flood and to settle the nine states within the empire. The government then began to classify the fields of the nine states into nine grades, one grade for each of the nine states.

Grades of Land.	Names of Provinces.	(Present Provinces.)	Color and Nature of Soil.
First.	Yung Chow.	Shensi and Kansu.	Yellow and mellow.
Second.	Su Chow.	Shantung, Kiangsu and Anhwei.	Red, clayey and rich.
Third.	Tsing Chow.	Shantung.	Whitish and rich salty.
Fourth.	Yu Chow.	Honan.	Mellow, rich, dark and thin.
Fifth.	Ki Chow.	Chili and Shansi.	Whitish and mellow.
Sixth.	Yen Chow.	Chili and Shantung.	Blackish and rich.
Seventh.	Liang Chow.	Szechuen and Shensi.	Greenish and light.
Eighth.	King Chow.	Hunan and Hupeh.	Miry.
Ninth.	Yang Chow.	Kiangsu, Anhwei, Kiangsi and Chehkiang.	Miry.

(Summary form of table according to Chen Huan Chang, *Economic Principles of Confucius.*)

REFERENCES: Do Yu Tung Din; also Chen Chow Tung Tzu (Sung Dynasty).

Before the period of Emperor Yao, the government system and regulations were very simple and incomplete; therefore there is no way of obtaining the detailed records. At the time of Emperor Yao, the empire was undergoing the great flood, and the whole "universe" was in a confused and desolate state. Then Emperor Yao appointed "Great Yu" to settle the water and earth, and to outline the empire into nine states. (Reference goes on to give same as above). The cultivated land in the nine states altogether amounted to 9,108,020 chuans (one chuan equals 100 mows). After the period of Emperor Yao there came Emperor Shun, the Hsia Dynasty, and the Yin Dynasty, altogether making a period of one thousand years. For these periods there are no records of land cultivation available, so we (Tang) have no way of discovering the details.

CHAPTER II

Chow Dynasty, 1122-256 B. C.

I. *Beginning of Chow, 1122 B. C.*

References: Chow Li chapter on Land Department (altogether there were six departments: Heaven, Land, Spring, Summer, Autumn, Winter).

Paragraph on the Mandarin of the Earth (Chief Minister of Land Department).

The duty of the chief minister of the land department was to establish fields and districts, outline the boundaries, and construct water channels. The land was distributed according to the number of families. In the neighborhood of cities, each family [1] received 100 mows of the unchanged land, which could be cultivated every year; or 200 mows of the second class land, cultivated every other year; or 300 mows of the third class land, cultivated every third year.

Paragraph on the Assistant Minister, same department.

The duty of this officer was to equalize the land distribution, and to keep records of the number of people throughout the whole empire. For the distribution of the land, the quality of land was in accordance with the size of the family. To a large family of seven of whom three were adults superior land was distributed; to an ordinary family of six, among whom two or three were adults, ordinary land was distributed; and to a small family of five, of whom two were adults, inferior land was distributed.

It was also the duty of this officer to administer the fields and to put them either under cultivation or under pasture. In

[1] Notice 100 mows of land in Chow Dynasty was not for a single person, but a whole family.

the system of cultivation, nine foo (foo ordinarily means adult but here means head of the family who received the land for the whole family) constituting one Tsing. Four Tsing made one Yi (village); four Yi made one "Chu" (army or division); four Chu made one "Tien" (section or community); and four Tien made one "Hsien" (district); and four Hsien made one "Tu" (county).

Paragraph on Si Ren (Officer in Charge of the People's or Land Department).

The duty of these officers (2) was to take charge of the country, to teach the people about soil adaptation, to encourage the people with season implements, etc., and to keep records at times of the number of the population, so as to distribute land to the people in the country.[1]

Of the superior land, one man together with his family, received a home with five mows in the town, 100 mows of land, and 50 mows of fallow land, which was purposely left idle in preparation for another crop. Of the ordinary land, one man together with his family, received a home, and 100 mows of land, and 100 mows fallow; and of the inferior land, one man together with his family, received a home, and 100 mows together with 200 mows of fallow land.

Canonical Interpretation of the Tsing Dynasty (not the original Chow Li) in interpreting the Chow Li gives this additional passage:

If any family had a large number, the supernumary male received an amount of land as follows: of the superior land, 12.5 mows fallow land; of ordinary land, 25 mows fallow; and of inferior land 50 mows; while for all three grades of land he received 25 mows of land to be cultivated.

Reference: Do Yu Tung Din.

At the beginning of Chow, the families of students, laborers and merchants received only 20 per cent as much land as those of farmers.

[1] In the country, the law of land distribution was somewhat more favorable than in the vicinity of cities.

People began to receive land when they were 20 years old, and they returned the land to the government when they were 60 years old.

REFERENCE: Li Ki (Record of Rites), chapter on Royal Regulations.

In a share of 100 mow, superior farmers were able to feed (or provide for) 9 persons; next class of farmers, 8 persons; next, 7; next, 6; and the inferior farmers were able to provide for 5 persons only.

II. *Near End of Chow Dynasty* (Period of Warring States, 403-221 B. C.), *372-289 B. C.*

REFERENCE: Mencius—Classics.

Mencius says: The very first thing for the best (kind) government administration to do must be to *correct* the boundaries of the fields. Without the correction of field boundaries, the land distribution would always be unequal, and the income of grain and the salaries of the officers will always be unfair. Therefore the cruel kings and greedy officers always wished to destroy the field boundaries (so they might have a free hand). Once the field boundaries are correctly administered, we can simply sit down to "distribute the land" and to regulate the salaries (of the officers) without any difficulty.

III. *Nineteenth Year of Emperor Wai Nieh Wen of Chow* (about 407 B. C.).

REFERENCES: Han Book, Chapter on Food and Commodities; also Tung Chien or Tsu Chih Tung Chien.

When Li Ko was the Wai Wen How (Marquis of Wai State, 407 B. C.), he put the theory of intensive cultivation into practice very successfully. His theory was called "the doctrine of the maximum use of land power," and is something like this: In an area of 100 li square, there are 9,000,000 mows. Allowing for the mountains, marshes, and city residences one third of this amount, there are 6,000,000 mows of cultivable land. If the people cultivate it intensively, each

mow can yield three additional tou (one tou is one-tenth load) of grain. Therefore, even within an area of 100 li square, the difference between an addition and a loss of grain will be 1,800,000 loads. When this doctrine was applied to Wai (one of the seven states in the Period of Warring States) the state became rich and strong.

IV. *Nineteenth Year of Emperor Hsian Wong of Chow* (about 350 B. C.).
(*Thirteen Year of Duke Hsiao of State Chin*).

System of taxation equalized by abolishing field boundaries.

REFERENCE: Sze Ki (Historical Record), chapter on Shang Yang (360-338 B. C.).

Mr. Shang abolished field boundaries, and established a new land system and consequently the system of taxation (Land Tax) was equalized.

240 pu made 1 mow instead of 100 pu.

REFERENCE: Tang Book, chapter on Tu Chu (a Northern Barbarian).

Do Yu says (quoted by Tang Book) the system of the Chow Dynasty was to use 100 pu (square pu) as one mow, and every man together with his family received 100 mows. When Shang Yang was the minister of the State of Chin, he changed 100 pu into 240 pu (square pu) as one mow, and one man also received 100 mow.[1]

Shang Yang's Policy: Inducing Immigration; No limit set on size of holding; People of State Chin sent to fight on border.

REFERENCE: Do Yu Tung Din.

Duke Hsiao of the State of Chin appointed Shang Yang as the Minister of State. It appeared to Shang Yang that in the territory of "Three Tsin"[2] (Shansi & Honan) the land was

[1] One man received 2.4 times as much in Shang Yang's time as under the Tsing Tien System.

[2] At the beginning of Warring States, the State Tsin, one of the

narrow (scarce) and the people poor (more people than the land could provide for); while in the territory of the State of Chin (Shensi) [1] the land was wide (plentiful) and the people scarce (thinly populated). Therefore in the state of Chin not all the land was cultivated and not all the land power was fully utilized. Consequently the policy of Shang Yang was to induce the people of the Three Tsin (Shansi) to migrate to the State of Chin (Shensi), to benefit themselves by receiving fields and houses (given by the government of the State Chin) and by being allowed to work out on the farm without being required to attend to any military services for three generations. At the same time, the people of the State of Chin were sent out to the frontier to fight the enemies (the word enemy refers mostly to the people of the Three Tsin themselves). Therefore Shang Yang abolished the Tsing Tien and established a new field system. The people were allowed to cultivate as much land as they desired, no limit being set on the amount of land they should cultivate. Within a period of several years, the state became rich and the army strong. Consequently no state was able to compete with Chin at that time.

Number of people very small in proportion to area.

REFERENCE: Shang Tze, chapter on Lei Ming (Encouragement of Immigration).

The system of land distribution by the "ancient kings" is as follows: Within an area of 100 li square,[2] 10 per cent is

largest states in the period of Spring and Autumn, was divided into three states, Wai, Chow and Han, three of the seven states in Warring States period. It may also be noted that Wai was one of the states in which Li Ko applied the principle of intensive cultivation, and also the equalization of the price of grains.

[1] From the beginning of Chinese history, Huangti down to Hsia and Yin Dynasties, Shansi was the center of Chinese civilization. Chow was the first dynasty to locate the capital in Shensi, and at the beginning of Eastern Chow, 770 B. C., it was removed from Shensi to Honan.

[2] Equals 10,000 square li = 900,000,000 square pu = 9,000,000 mow ancient.

mountain and hills, and 10 per cent is marshes and ponds; 10 per cent is brooks and water channels; 10 per cent is in cities and residences, roads, and pathways; and only 40 per cent of them are fertile fields for cultivation. (Discontinuance of passage here is probably due to loss of records.)

The produce from this area (100 li square) was sufficient to provide for 50,000 foo [1] (man, probably with wife). Moreover, the mountains, brooks, marshes, etc., within this area (100 li square) were sufficient to provide the materials (fuel, fish, animals, etc.) to be used by these people (50,000); and the cities, residences, roads, paths, etc., were sufficient for the people to live in and to use. This completed the system of administration by the "ancient kings" (beginning of Chow). But at present (Shang Yang, 350 B. C.) the state of Chin occupies an area five times as much as 1000 li square,[2] but out of this amount less than two per cent [3] is being used to produce grains and the total land actually being cultivated amounts to less than one million chuans or 100 thousand mows, ancient. This is why we say "the population is not in proportion to the land." [4]

First use of oxen for plowing.

REFERENCE: Sze Ki (Historical Records — Sze Ma Chien) written in Han.

The grandson of Hou Chi, by the name of Shou Tchen, was the first to use oxen for plowing. (Therefore he would be at the end of Chow Dynasty.)

[1] 100 li square contains 9,000,000 mow ancient, at 100 square pu per mow. At the rate of 40 per cent fertile fields, it gives 360,000 mow fertile fields to be divided among 50,000, making 72 mow (ancient), for every man with wife.

[2] Five times 1000 times 1000 equals 5,000,000 square li.

[3] Less than 100,000 square li. It is, therefore, less than 900,000 chuans or less than 90,000,000 mows, ancient.

[4] More men were needed to cultivate the land which had been left uncultivated, and this was, therefore, the reason why he wanted to induce and encourage the immigration from Three Tsin.

CHAPTER III

Chin Dynasty, 246-202 B. C.

First year of Emperor Chen of Chin Dynasty (first emperor of Chin).

Reference: Han Book, chapter on Irrigation.

The government of Chin State appointed Chen Kou from Han State (one of the Three Tsins) as an engineer to open the King River to make water channels (waterways) for a distance of over 300 li, in order to irrigate fields more than 1,040,000 chuans. As a result every mow (there must have been 240 pu in each mow, as it was after the time of Shang Yang) received a return of one Chung (one Chung equals 6.4 loads). Consequently throughout Kwan Chung (Shensi, occupied by the State of Chin before it became a unified empire) there were fertile fields all over; and there were no more bad years,[1] and the State of Chin then became rich and strong. Finally the State of Chin soon conquered all the other

[1] It is to be noted that conditions had changed from the time when Shang Yang abolished Tsing Tien. The fields had been occupied and worked and there had arisen bad years, and sterile fields. Thus irrigation was used and it once more improves the fields. This happened just before Chin unified the empire.

It is interesting to note that Mencius (372-289 B. C.) and Shang Yang (360-338 B. C.) lived at the same time; the former, a strong advocate of the restoration of Tsing Tien, which the latter did away with entirely. These two are good representatives of the two schools of economists found throughout Chinese history: the Classical School and the Practical School. The members of the Classical or Confucian School always went back to the measures of the classical period whenever remedies were needed for any situation, believing them the panacea for all ills, whereas the followers of the Practical School formulated remedies from what they understood of the situation.

six states and unified the whole empire. The water channels were called Chen Kou Channels.

REFERENCE: Ku Kin Tsi Pin Liu.

In the Chin Dynasty, Emperor Shi Wang united the empire, built up five mountains in the south and built the Great Wall in the north. He used the strength and services of the people as much as he could, for fear that he might not be employing all their strength. So at this time the men worked hard on the farm but were unable to get enough to eat. Girls spinning could not get enough to wear. Therefore the people all became dissatisfied with the Chin Dynasty, and hence the outbreak of the rebellion.

REFERENCE: Ku Kin Tsi Pin Liu.

State of Chin (near end of Chow, Shensi).

The state officer (chief secretary), Shang Yang, abolished the Tsing Tien System and opened the fields and boundary lines. People were then allowed to cultivate wherever they wished, and there was to be no limit to their land-holdings. After his new policy had been adopted for several years the state became rich and the army strong.

REFERENCE: Han Book, chapter on Chan Shen.

He stopped while cultivating at the edge of the farm. (As this man was the leader of the rebellion which caused the end of the Chin Dynasty, probably the rebellion was due to dissatisfaction with farming conditions.)

CHAPTER IV

Han Dynasty, 202 B. C.–220 A. D.

(First or Former Han, 202 B. C.–24 A. D.; Second or Later Han, 25-220 A. D.)

I. *Han, in general.*

Agricultural Knowledge.[1]

Reference: Chi Min Yao Shur, chapter on Plowing Fields.

Fan Sun Tsi (an economic scholar of the Han Dynasty) says that the fundamental principle of cultivation is that of working in season. The best way to care for fields is by plowing at the fifth and again at the sixth month; but not in the seventh month. On a common ratio, the efficiency of plowing once in the fifth month is equal to three, and in the sixth month equal to two, whereas five plowings in the seventh month are equal to less than one. Even in thin and poor fields the return for one mow (following the principle above) is more than ten loads.

Fan Sun Tsi says that a special kind of rice (?) can withstand both flood and drought. So if it is planted, a good

[1] The book Chi Min Yao Shur, written in Northern Wei (of the Six Dynasties) by Chai Sze Si, is, according to the Imperial Library Catalogue (compiled at the beginning of Tsing), *the best book on agriculture.* Just how many of the devices mentioned in this book belong to the Han in the sense of being in use by them, we cannot ascertain, except in the few cases where well-known persons are mentioned; but Northern Wei being so near Han in point of time, there is the presumption that Han agricultural knowledge was highly developed. The following are some references taken from Chi Min Yao Shur of interest in connection with the interpretation of Han economic conditions. Those specific references the time of which have been ascertained are grouped under their particular emperors.

harvest is assured. And in good years, this crop can be used for oxen, horses and sheep.

REFERENCE: Han Book, chapter on Food and Commodities.

The five other kinds of crops, big and small millets, hemp, wheat and beans, ought to be planted along with the planting of rice (principal crop), so as to prepare for the emergency of disasters and famine. Around the residences may be planted mulberry trees, vegetables, fruits, etc.

REFERENCE: Chi Min Yao Shur, chapter on the Planting of Grains.

The best way to prepare fields for grains is to have green *beans* and small beans as their background; the next is to have hemp, millet, barbarian hemp as a background; still the next to have grass and big beans as a back ground. (Background means a previous crop before the regular grain [rice?] is planted. It is unfortunate that the one word means both rice and grain. However this shows that rice was the principal grain crop).

Grain (or rice ?) fields ought to be changed every year (rotation).

By following the seasonal conditions and adapting the crop to the soil conditions, people will get large returns with little labor.

The best time to sow grain is immediately after rain.

If the weather is very dry in the spring, the fields for the fall crops may have their boundaries opened waiting for the rain.

The best way to cultivate fields is to plant together crops which may be harvested at both early and late seasons (intertillage).

During leap years, the seasons are comparatively late, so it is usually well to plant late crops (harvested late). (It may be noted here that the Chinese leap year is different from the western in that there is an extra month instead of an extra day; hence causing seasons to be later). But the general tendency

is to plant early crops, because they give twice the returns of the late crops.

On the hills or on steep and sloping land, none of the five crops are grown. So such land is usually used for bamboos and woods. Thus, in the spring, dry wood is obtained from this kind of land; in the summer, fruits and melons; in the fall, vegetables, and in the winter, fuel is prepared.

In the first month, rice is planted: in the sixth month millet; in the ninth month, wheat; at the end of autumn (end of ninth month) the harvest takes place.

Chu-Tien (Stripping Field) System.

In this system it is unnecessary to cultivate the land before hand; even *waste* land may be used. One mow of this land (180 ft. long, 48 ft. wide) is divided lengthwise into 15 ting. Between tings there are prepared 14 paths on which people may walk. Every path is 1.5 ft. wide and 48 ft. long. On each ting, ditches of one foot wide and one foot deep are dug. In these ditches, crops are planted. The distance between the ditches is also one foot.

In case rice and millet are planted in the ditches, they are planted in two rows, each row at 0.25 ft. from the edges of the ditches, and the distance between the two rows is 0.5 ft. The distance between each plant of the crop sidewise is also 0.5 ft. One ditch contains 44 plants. So in one mow of land there are 15,750 plants. The depth of the soil for the plants of rice and millet is 0.1 ft., no more, no less.

In case of wheat, the distance between two rows is 0.2 ft. One ditch contains 52 plants. So in one mow of land there are 45,550 plants. The depth of the soil is 0.2 ft.

In case of big beans, the distance between two rows is 1.2 ft. One ditch contains 9 plants. In one mow of land there are 6,480 plants.

In case of Ern (?) the distance between rows is three feet.

In case of hemp, the distance between rows is one foot.

If the weather is very dry, irrigation is often applied.

The return of one mow often exceeds 100 loads.

REFERENCE: Chi Min Yao Shur, Book Two.

Millet. The best way to plant millet is to use newly opened waste land; the next best, is to use big beans as the background; and the worst, to use rice as the background. In the latter cases a fertile soil is required. That planted in the first ten days of the third month is called "early season"; in the first ten days of the fourth month, "medium season"; and in the first ten days of the fifth month, "late season". If it is sown in the summer it is at the same time as when rice is planted. Otherwise it is sown in the freezing weather of the tenth, eleventh, and twelfth months.

Big Beans. The spring big beans are planted immediately after the rice. The second ten days of the second month is called "early season" for planting; the first ten days of the third month, "medium season"; and the first ten days of the fourth month, "late season". Wheat is used for the background. The harvest ought to be late; it takes ninety days for full growth; after that it takes seventy more days to become ripe.

Small Beans are usually planted after wheat. But there is the danger of their being planted a little too late. People who own very much land usually reserve their rice fields of the preceding year for the emergency.

Ten days after the summer solstice is the early season for planting. Chow Fu,[1] the medium season, and Chung Fu[1] (middle summer), the late season. After this it will be too late to plant. It takes sixty days for full growth, and requires sixty more to harvest. In beautiful fields one mow gives ten loads in harvest, while in poor fields one mow gives five loads.

Hemp ought to be planted in rich fields; waste land cannot be used. If the soil is poor, fertilizers should be applied. In case rich fertilizers are not available, a background of small beans should be used.

[1] Names of festivals. There are twenty-four festivals in the year. Two in each month, usually, except in leap year (extra month), for there are only twenty-four in any year. Chung Fu is the hottest time of the year. Farmers go by this calendar.

The crops should be changed every year.

Ten days before summer solstice is called the early season for planting; the summer solstice, the medium season; and ten days after the summer solstice, the late season.

To plant hemp when wheat ripens, and to plant wheat when hemp ripens, is a very good arrangement of time (for producing several crops).

Small Hemp. The method of planting is the same as for hemp. The third month is called the early season for planting; the fourth month, the medium; and the fifth month (first part fifth month), the late season.

It takes 70 days to blossom and 60 more days to ripen.

All fields of the "five grains" which are near the pathways are often spoiled by the "six animals" (i. e., "horse, ox, sheep, chicken, dog, pig"). So the best way is to plant hemp in these fields (as hemp is not attacked by animals).

One should never plant small hemp along with *big beans.* Otherwise, both crops will be spoiled, and the harvest poor in both cases.

Rich fields harvest about 50 to 100 loads to one mow; while even poor fields harvest 30 loads.

Big and Small Wheat ought to be planted on dry land during the fifth or sixth months; otherwise the harvest will be doubly poor. In case of hilly fields or strong and solid land, the method of sowing along with plowing should be used. Special wheat (?) should never be planted except in rich soil.

Big Wheat. The middle Wu (Chung Wu) of the eighth month is called the early season for planting. Shar Wu (last Wu) of the same month, the medium season; and the first of the ninth month, the late season.

Small Wheat. First Wu [1] (Shang Wu) of the eighth month

[1] Wu is one of the series of ten (probably like the series of the seven days in the week in English) which runs in the Chinese month. Since a month has about 30 days, the series will occur about three times. Hence the first Wu is Shang Wu; next, Chung Wu; and the third, Shar Wu.

is called the early season; middle Wu (Chung Wu) the medium season and last Wu (Shar Wu), the late season.

Li Ki's (Book of Rites) Monthly Bulletin says in the month of middle autumn (eighth month) farmers are urged to plant wheat so that no one will miss the seasons.

Big Wheat takes 200 days to become abundant, and 50 more days to ripen.

Small Wheat takes 210 days to become abundant and 60 more days to ripen.

Fan Sen Tsi (Han) says that there are six orders of crop rotation for field cultivation; of them wheat being the first to be planted.

If the harvest of wheat is good, everything will be alright. At 70 days after summer solstice, wheat may be planted.

Rice (wet fields). Rice crops do not depend on any particular (previous crops) but require a change of crop every year to get good harvest. In choosing land for rice, it is best to be near the upper-course of the river. No matter whether the land is rich or poor, so long as the water is clear, the rice crop planted will be always beautiful.

The third month is called the early season for planting, the fourth month (first ten days), the medium season; and the fourth month (second ten days), the late season.

It requires 80 days to be abundant, and 70 days more to be ripe. Wherever the grasses grow in the swamps that is the place to plant rice. In planting the rice crop, it ought to be thin in rich fields and thick in poor fields (*vice versa*?).

Rice (dry fields). In case low fields are used, white soil is better than black soil. It ought to be dried during the fifth and sixth months just as in the case of the wheat crop.

During the wheat-planting season, if too much rain occurs to prevent the sowing of the wheat, it is best to wait until the next spring to plant the rice crop. The rice crop harvest is never missed by this method.

The middle of the second month is called the early season for planting; the third month, the medium season; the first and middle of the fourth month, the late season.

In the case of high fields, the cultivation of this kind of rice crop does not require good soil, even waste land will do. (If the soil is too rich, the sprout will be broken; while in the case of waste land, no weeds will grow). In other respects, the method is the same as for low fields.

Melons. In case good soil is used, it is best to use small beans as the back ground; and next, millet. In the case of fertile and beautiful soil it is best to plant a late rice crop beforehand. Another way to fertilize the land for planting melons is to plant green beans in the land during the sixth month, immediately after a rain, *to kill these beans at* the middle of the eighth month, and then to plant melons at the end of the tenth month.

Yu, Chinese Potato .....
Qwai .....
Onions .....
Ginger .....
etc., etc.

II. *First or Former Han, 202 B. C.–24 A. D.*

§ 1. *Beginning of Han.*

REFERENCE: Han Book, chapter on Food and Commodities.

At the beginning of Han, which received all the evil conditions from Chin, all the vassals and lords came out together (in rebellion). People lost their occupations, and there was a *great famine.* One load of rice was sold at the price of 5000. Human flesh was eaten *and more than one half of the population perished.* Then Kau-tso (the first emperor of Han) allowed the people to sell their sons in order to go and get food at Tso Hou (Szechuen). After the empire was settled there were no savings or stored provisions left. Therefore the emperor reduced the rules (made them more lenient); he also relaxed prohibitions and reduced the land tax to one-fifteenth (instead of one-tenth); and transported the crops from Kwan Tung (Shensi) to give relief to Chung Dau (Honan). The salaries of the officers each year were never

above several hundred thousand loads. Up to the period of Shau Wai (the second Han emperor) and Kan Hau, clothes and food were plentiful (at the period of Shau Wai, etc.).

REFERENCE: Ku Kin Tsi Pin Liu, chapter on Agricultural Administration in the Han and Tang Dynasties.

When Han rose, it succeeded to the defects of Chin Dynasty. People had lost their occupations, and there was a great famine. The first emperor, Kau-tso reduced the taxes and services to let the people rest. During the period of Hwai-ti (second emperor) and of Empress Dowager Yu (third ruler) more and more food and clothing were produced for the people. The Emperor Hen-ti was very economical, so the people were peaceful and contented. But still there were some people who turned away from the fundamental and ran into the branch occupations. . . . Chai Yu (a statesman of Han Wen-ti's period) says, " at present the *fields* measured *are not less*, and the *population* calculated are *not more* than before, so we ought to have more surplus than in ancient times. *Yet people now do not have sufficient provisions.* What is the trouble? Is it not because the people who work on branch occupations to the harm of farmers are increasing, those who ferment wines and liquors to the wasting of grains are many, and those who raise animals to consume food are too numerous? "

§ 2. *Emperor Kao-ti (first emperor), 206-195 B. C.*

REFERENCE: Han Book, chapter on the Emperor.

There was a great famine in Kwan Chung (Shensi) and one load of rice was worth 10,000 cash. The people ate one another. So the government ordered them to go to Sauh Han (Szechuen) to get provisions.

Chapter on Chen Pin (who was one of the high officials who had helped Kau-tso to unify the empire).

His family was poor and he owned 30 mows of fields and stayed with his elder brother.

§ 3. *Emperor Wen-ti*[1] *(or Hsiao Wenti third emperor, fourth ruler), 179-157 B. C.*

REFERENCE: Ku Kin Tsi Pin Liu.

At Kwan Tung (Shensi) the wandering people without names amounted to 400 thousand. The swamps and edges of ponds belonged to Sou Fu (central government). These were occupied and cultivated by relatives of the emperor.

REFERENCE: Han Book, chapter on Food and Commodities.

The time was near to the period of Warring States and the people all got away from the roots (fundamentals—as agriculture) and desired to work on the branches (trades and commerce). Chia Yi (a scholar and statesman of the time) said: "Now we ought to make people go back to the farms and put emphasis on the principal things, so that everyone will live by his own work; and all kinds of laborers, and wandering (journeymen ?) professionals or practitioners will go back to the farms. Then the savings (stores) will be plenty and everyone satisfied and happy." The emperor was moved by his sayings and began to open the imperial field and work upon it himself in order to encourage the people.

Chao Chor (also a statesman of the period) said: "Now all within the seas has become one empire; the *number of the people and the area* of the territory *are no less* than that under Yu (Great Yu) and Tang. Besides there are *no famines, floods, or droughts; but the saving is not as much as it used to be.* Why? . . . If one does not work on a farm, one does not wish to stay in one place all the time. If one does not wish to stay in one place all the time, then one will not mind leaving his native village and home. Such people move about just like birds and animals. Even though you have high city

[1] Perhaps a better appreciation of the Wenti references will be had if the reader is reminded that Emperor Wenti abrogated the law against criticism of the government. His period was one of reclamation and improvement, although one is told of the evils existent.

walls and deep ditches, strict laws, and heavy punishments, you cannot prevent them from wandering. . . . Therefore if you make people put emphasis on farm and mulberry, lighten the taxation and increase the saving (by buying crops), then the official storehouses will be full thus preparing for flood and drought. In this way the people will always have plenty.

Now at the present time take the case of farmers with families of five mouths, the working members not less than two. The land which can be cultivated is not more than 100 mows and the return of this land is not much more than 100 loads. Plowing in the spring, cutting weeds in the summer, harvesting in the fall and saving in the winter, cutting wood for fuel, doing service for the government. In the spring they must not mind wind or dust, in summer they must endure hot weather, in the fall, dark rains, in winter, frost and cold. So in all four seasons there is not a day of rest. Besides they have to entertain guests, provide for deaths and sickness, and the raising of orphans and children. Hence the toil. Moreover they may have to suffer flood or drought, bad government and the collection of taxes at inconvenient times, with orders issued in the morning and changed in the evening. When the farmers have a harvest they have to sell it at half price. When they do not have a harvest, they have to borrow crops at double interest. Therefore some of them are forced to sell their houses and farms, their sons and grandsons to pay their debts. On the other hand the big merchants accumulate the crops and double the interest; while the small merchant buys here, retailing there, using his wonderful skill in profit making (speculation), traveling in cities and markets daily. On account of the urgent demand, the selling prices are multiplied. Therefore such men do not have to cultivate the fields and the women need not raise silk worms or spin. But their clothes are always beautiful and artistic; and their food is always rice (meat and millet); thus they need not suffer the hardships of the farmer but they receive returns a hundred and thousand fold because, being wealthy, they are able to make friends with

the dukes and princes—their influence being higher than that of officers; and they use their wealth as a means to overcome the people. So they travel thousands of lis, conspicuous by their numbers and equipage, riding in conveyances, riding horseback, wearing footwear and clothes of silk. Therefore this is the way the merchants eat up (accumulate the property of) the farmers. The farmers become wanderers."

So the emperor issued an edict reducing taxation to one half for that (the twelfth) year. And for the following year he removed it entirely.

REFERENCE: Han Book.

The Emperor Wen-ti was the first to open and to cultivate the imperial fields himself. He reduced the taxes by half for one year, during the second year of his reign. In the twelfth year of his reign he issued an edict saying: " I myself led the farms of the universe for 10 years, but no new fields have been opened (number not increased) . . . Therefore I reduce the taxes for this year (as in the second year) to one half."

Chapter on the Emperor.

The emperor thought the people were in a dangerous condition, so he issued an edict to relieve them.

The emperor issued an edict calling for discussions as to methods of helping the people. The edict says: " The *fields at present have probably not been reduced and the population at present has not increased from the previous periods. So if we consider the amount of land for each mouth, each person at present holds more land than those of the ancients, but nevertheless the people now are far from having sufficient land from which to secure their provisions.*"

Do Yu Tung Din.

When Wen Wong was appointed county officer of Sauh county, he cut through Chain Sow Kao (mouth or breaks) to irrigate 1700 chuans of crowded fields, and consequently the people received the benefit.

REFERENCE: Chia Yi's Sen Shu (Chia Yi lived 200-168 B. C.).

If rich people are not willing to lend the poor people will be hungry. In the case of a poor harvest or on account of a bad season, they have to sell houses and children. Recently there was lack of rain. The situation was pitiful. Simply a little rain, and people feel that life has come back to them again. Thus you can see how badly the country is in need of reserves.

§ 4. *Emperor Tsing-ti (fifth ruler, fourth emperor), 156-141 B. C.*

REFERENCE: Han Book.

Often the years are poor and provisions for the people scarce.[1] Why? Because officers are very corrupt and desirous of bribes. They rob and invade to take from the people that which they have.

Recently harvests have frequently been lean. Perhaps because those who work on branch occupations are too many, and those working on farms too few. So the emperor orders the officers in the districts and states to encourage farming and the cultivation of mulberry trees and to plant more trees.

REFERENCE: Ku Kin Tsi Pin Liu.

On account of drought in the west, the emperor reinstated the order that grains be accepted for official positions and for release from punishment. The purpose of this measure was to increase the government income. However in spite of this order, the emperor sternly ordered the district officers to pay special attention to the affairs of the people, so that the people might be contented in their occupations.

REFERENCE: Han Book, chapter on the Emperor.

The edict says: "The harvests have frequently been poor

[1] Tsingti's time, however, is considered a good period by Chinese historians. Hence this reference may only represent a small portion of the country.

and many people are short of food. Many distrcts and counties are poor and lean and left idle without cultivation of the soil for agriculture and the raising of mulberry trees or the raising of animals. On the other hand, land in other places is full of grass and water, but the people cannot get to this kind of land. So methods are to be discussed to let people move to the wide and big territory if they so desire."

§ 5. *Emperor Wu-ti*[1] (*sixth ruler*), *140 B. C.–7 B. C.*

REFERENCES: Han Book, chapter on Food and Commodities; also Ku Kin Tsi Pin Liu.

During the period of Wu-ti, the government was very busy both with military expeditions as well as with civil constructions (architectural works). Consequently so much labor and service were required for these projects that many people had to leave their principal occupation—agriculture.

Han Book, chapter on Kun Yu.

The Emperor Wu-ti of Han Dynasty sent expeditionary forces against the barbarians on the four sides, and levied heavy taxes on the people. People who had sons three years old were to pay mouth taxes on them. This caused much suffering. *Some even killed their sons as soon as they were born.*

Han Book.

Wu-ti emphasized military interests (expeditions) and because of lack of funds he began to use Dun Gor, Shen Yang, Hung Chin, Sang Hung Yang, etc., as officers after they had presented either grain or sheep to the government. He also allowed people to purchase military offices, and made skin and white metal currency. He then adopted certain policies—im-

[1] Han Wuti and the First Emperor of Chin are the two most conspicuous rulers in all Chinese history. Both were very ambitious in carrying on expeditions and extending the territory of the empire and in the construction of public works. The first Emperor of Chin built the "Great Wall," to which fact Chinese scholars attribute the short life of the Chin Dynasty.

posing taxes on salt and iron, conveyances and boats; he also adopted methods of accepting payments to the government in kind, and the equalizing of prices.

Han Book, chapter on Food and Commodities.

At this time, Tung Chung Shoo [1] petitioned the emperor saying: "The state of Chin adopted the system of Shang Yang and changed the regulations of the ancient kings and emperors. It abolished the Tsing Tien, and allowed the people to buy and sell their land. As a result, the rich possess land from field to field, while the poor haven't even enough space to accommodate an awl. When the Han Dynasty succeeded the Chin Dynasty, we followed the example of Chin without modification. But we must realize that, although it is (at present) very difficult to restore absolutely the ancient system of Tsing Tien, we must approximate it; that is, we must *limit* the amount of land holding (Limitation Policy) of the people, in order to help out those who have insufficient provision and to stop the practise of 'eating up'. In this way, and only in this way, may we hope to be successful in carrying out a good government administration."

Emperor Wuti did not adopt the policy of limitation. After Tung Chung Shoo died, the government work in connection with military expeditions and civil construction became still more excessive, and the whole empire became empty and exhausted (storage and wealth used up). Consequently people began to eat human flesh *again*.[2]

Same reference.

At this time Shantung suffered famine from the Yellow River trouble, the harvest being poor for several years. Sometimes the people even ate one another. This was prevalent over an area of two to three thousand lis.

[1] 140 B. C. A very strong member of the Classical School and the author of "Many Dewdrops of Spring and Autumn." He belonged to the type of Mencius.

[2] This means that the condition had existed before. Perhaps it refers to the period of the Warring States.

The emperor pitied them, and permitted the hungry people to travel to get food from places along the Kiang and Wai Rivers. And they might stay in these places if they so desired. There was a great flood and the people in Kwan Tung (Shansi, Honan, Shantung, Chili) who died from starvation amounted to thousands. So an edict was issued ordering the transport of grains (millet) from Pah Sauh (Szechuen) to Kiang Ling (Hupeh), and the hungry people were allowed to go to get provisions in the region of Kiang Wei (Yangtze and Wei Rivers—Kiangsu, Anhwei, Kiangsi, Honan, Hupeh, etc.)

REFERENCE: Han Book, chapter on Food and Commodities.

In the later years of his reign, Emperor Wuti began to regret his policy of military expeditions. He conferred the title of Foo-Ming How (People Enriching Marquis) [1] upon the prime minister of the empire, and he appointed Chow Gor (89 B. C.) to be Sou Show Tu Wai (a general officer for seeking grains.) [2]

Chow Gor then taught the people the method of "substitute fields" or "alternative fields".[3] The system of "Alternative Fields" was to make three high lines and three low lines within one mow, and the low and high lines were alternated every year—therefore so-called alternative or substitute fields.

The seeds were sown into the low line, and the blade sprang up. When the grass of the high line was weeded out, the soil of the high line was put down upon the low one in order to protect the root of the blades. In each time of weeding, the root was protected by the additional soil. Such a process was repeated and repeated; hence the low line gradually became higher and the high line lower. By summer the high line

[1] The idea was that the chief duty of the prime minister was to enrich the people. It might indicate the need of the people at that time.

[2] Tu Wai means officer; Sou Show means seeking grains. The idea was to let him take charge of agricultural affairs, and his chief duty was the increasing of yields of grains, thus the name "seeking grains."

[3] Tai Tien, a system invented by Hou Chi, the minister of agriculture of Emperor Yao, 2283 B. C., but put into practice again by Chow Gor.

had disappeared, and the root was very deep. Therefore the grain was able to stand against the wind and drought.

Besides this, Chow Gor invented many skillful and convenient farming implements for use in cultivation, weeding, sowing seeds, etc.

Moreover he gathered together some of the old country farmers who were very industrious and skillful in farming, to make special study of farming implements, methods of cultivation, sowings, raising sprouts, etc.

His system was this: For every twelve men, one well (Tsing), one house, and 500 mow (240 pu to one mow) of old fields were provided.

The annual harvest of the alternative fields exceeded that of those fields which were not alternative by more than one load to every mow. If this method was properly employed by a good farmer, the amount was doubled.

Chow Gor also tried this method on some waste [1] fields (fields which had been left waste for some time) and they all gave more abundant harvests than usual—more than that of the fields in the neighborhood which were not alternative by an amount of over one load of grain to a mow in one year.

REFERENCE: Encyclopedia, Natural Science Series, Division on Agriculture.

'Chay Tsiu says that during Han Wuti's reign, Man Chow Gor, an officer especially concerned with the increasing of grain yield, invented the Lou-tsur and taught people how to cultivate. The method is to use one man for three oxen on a plow using this Lou-tsur for sowing at the same time. In one day one chuan (100 mows) may be sowed. He says that even now (Emperor Hwenti, Later Han, tenth emperor) the people there enjoy its benefit.

(Emperor Wuti's time is the most important after the Chow Dynasty with respect to the government actually teaching the people to farm.)

[1] This shows there were waste fields at that time — fields which had once been productive.

REFERENCE: Yen Tieh Lun (Debate on Government Monopoly of Salt and Iron).

Sang Hung Yang says (quoted by Yen Tieh Lun): "In the ancient time the system was to use 100 pu (square pu) for one mow, and the people lived under the Tsing Tien System with a tax of one tenth (tithe). Our former emperors realized the suffering of the people and the deficiency of provisions for the people; therefore a new system was established to use 240 pu (square pu) as one mow, and to tax the people at the rate of only one-thirtieth. Yet, some of the lazy people, unwilling to work hard on the farms are still crying that they suffer from hunger and cold. In my opinion, these people deserve their suffering. How can they expect to receive the harvest, if they are unwilling to do their part in cultivation and sowing? Under such conditions how can we put the blame on the system of government monopoly of salt and iron?[1]

REFERENCE: Sze Ki (Historical Records).

This is the first time to recruit(?) people voluntarily for farms in the South Barbarian Territory. (Nom Yee).

REFERENCE: Yu Hai (Jade Sea).

Officers and people were ordered to encourage farmers to utilize the benefit of the soil to the full extent.

REFERENCE: Ku Kin Tsi Pin Liu, chapter on the Agricultural Administration in Han and Tang.

Wuti was worried about the inability to supply sufficient army provisions, so he established the system of Teng Tien (soldier farms). Volunteers were called for to farm at Hsu Shar (Honan) and they were taught how to plow and cultivate. Therefore farm officers were provided in all the districts.

[1] At that time, many people, especially those of the Confucian or Classical School, were of the opinion that the reason why people were leaving the farms (desertion) was mainly because of the government monopoly of salt and iron. Sang Hung Yang was defending the latter system. Sang Hung Yang was an economist and statesman during the reign of Wuti, 81 B. C.

After a period of several years, everywhere there was saving, and the official granaries were all full.

In the beginning, the people of Kwan Chung (Shensi) wandered to Ching Chow (Hupeh) amounting to more than 100 thousand families. But now they hear that their native land is peaceful and quiet all are anxious to come back. The government then encouraged farming and accumulated grain. Consequently the wandering people all returned eventually, and Kwan Chung became prosperous and contented.

REFERENCE: Han Book, chapter on Ditches and Si.

Emperor Wuti took the advice of Cheng Dong Sze and sent out several ten thousands of soldiers to cut the Wai River in order to make waterways. The fields of the people which were irrigated by this waterway amounted to more than 10 thousand mows.

Several ten thousands of soldiers were sent out to dig wells and to cut the Lung Sho Chu (Dragon Head Waterways) so as to irrigate the fields. The adoption of the system of *well waterways* (different from other waterways in that these have wells) began from this time.

The emperor took Peh Kung Foo's advice to cut across waterways and to conduct the King River (Shensi) to irrigate fields of more than 4500 chuans, and the people received the benefit, with the praise that "the spear (char) was raised to make rain clouds and the water ways were opened to make rain." One load of King River contains mud of several do (one-tenth load equals one do). (It can be used) both for irrigation and fertilization, so that it increases our rice (dry field) and millet crop. As a result it supplies the 100,000 mouths at the capital both with clothing and food.

REFERENCE: Han Book, chapter on Si Yu (Western Barbarian Region).

Sang Hung Yang, the officer for improving crops yields, reported to the emperor suggesting that ditches and waterways be established at the east of Lun Tai (Shensi ?) to irrigate

fields, so as to enable the people to plant in season more crops of the " five kinds ".

§ 6. *Emperor Chao-ti (seventh ruler), 86-74 B. C.*

REFERENCE: Han Book.

People who farmed and raised mulberry trees increased more and more, yet there were still many families which did not have sufficient provisions. So the emperor ordered that the " mouth " tax be reduced thirty per cent to encourage farming and the raising of mulberry trees.

REFERENCES: Ku Kin Tsi Pin Liu; also Han Book, chapter on Food and Commodities.

Wanderers gradually returned and more and more fields were opened. There was a little accumulation of savings. From this time edicts were quite often issued lending seed and suspending taxes for the people. Thirteen high officials of agriculture were provided, each one to take charge of one state; their duty being to encourage and give instruction in farming and the raising of mulberry trees. In two years time, the *cultivated fields amounted to 8,270,500 chuans.* All the universe was peaceful and happy, and the population very prosperous.

REFERENCE: Han Book, chapter on the Emperor.

The edict says, " In the previous years there have been many disasters, and this year the silkworms and the wheat crop have been injured." So envoys were sent to lend seeds and provisions to the poor, and those suffering people were exempted from land taxes.

Owing to the fact that the year was lean and that all the wandering people had not returned home, the people were ordered by edict not to supply horses to the government.

The government undertook to relieve the poor who had suffered from flood, and these people were exempted from transporting grain (taxation) to the capital for four years.

§ 7. *Emperor Shen-ti (eighth ruler), 73-49 B. C.*

REFERENCE: Han Book, chapter on the Emperor.

Reign [1] Pau Sze.

Third year: On account of a great drought, people were exempted from taxes.

Fourth year: On account of poor years volunteers were called for by edict to contribute grain to the government so as to help relieve the poor.

Reign Ti Chi.

First year: Fields were rented to the poor in different districts.

Third year: Public fields (belonging to the public) were loaned to wandering people, and seeds and provisions were also loaned them.

Reign Wu Fung.

Fourth year: The Normally Constant Granary [2] was established for the first time (in history) to benefit farmers.

[1] The word "reign" is used a little differently in Chinese from the English in that it is designated by a given name instead of by the name of the emperor and does not necessarily cover the whole period of the emperor's rule. Thus a ruler may have any number of reigns by merely changing the names of his "reigns" from time to time. This is usually done on special occasions of felicitation or after periods of trouble and disaster.

The emperors in Han and Tang dynasties changed the names of their reigns quite often; but the emperors in Sung Dynasty had the largest number of reigns. In Ming Dynasty there was only one reign for each emperor, with the exception of the case of Yin Chung, who was captured by the Barbarians and returned again to the throne after his captivity. Emperor Tai Chung was on the throne during the period intervening between the two reigns. In Tsing Dynasty each emperor had only one reign. In fact, the Tsing emperors are known by the name of their reigns.

Usually, the emperors at bad periods inclined to change their reign (with the exception of Yuan, Ming and Tsing Dynasties); but it is to be noted that Emperor Ren Chung of Northern Sung also had a large number of reigns, although his period is considered one of the golden ages in Chinese history by Chinese scholars and historians.

[2] When the price of grain was low, the granary was to buy at a

REFERENCE: Chi Min Yao Shur, chapter on Cultivation of Grains.

Discussion on Salt and Iron (Yen Tieh Lun) by Huan Kuan during Emperor Shen-ti's time.

Poor fields which cannot be treated with fertilizers (to advantage) may be sown with a manure, made by mixing worms and silkworms with rice seeds. In this way no worms will grow on the rice crop.

§ 8. *Emperor Yuan-ti (ninth ruler), 48-33 B. C.*

REFERENCE: Han Book.

The "universe" was ordered to pay special attention to farming. People who owned no land will all have land loaned to them. The government also loaned seeds and food.

REFERENCE: Han Book, chapter on the emperor.

All fields which formerly had been used as vegetable gardens, fishing ponds, etc., were now rented to poor people.

Reign Tso Yuan.

First year: Public fields and royal vegetable gardens were broken up and loaned to the poor; and seeds and provisions were also loaned to them.

On account of a poor harvest, the suffering people were exempted from taxes. Also ponds, lakes, gardens, reservoirs, were lent to the poor. On account of a great flood in Kwan Tung (Shansi, Honan, Shantung, Chili) grain and money were transported from other countries to save the people in Kwan Tung.

higher price; and when the price was high, the granary was to sell at lower prices. In this way a fairly constant price of grains was to be maintained.

Ku Kin Tsi Pin Liu tells us that "after the reign of Yuan-ti" (immediately after Shen-ti) the system of Normally Constant Granary was sometimes abolished or suspended.

Second year: The imperial gardens and ponds for raising dogs and horses were abolished and lent to the poor. On account of an earthquake, the people in the "universe" were exempted from taxes.

There was a great flood in the universe, especially serious to the eleven counties of Kwan Tung. In the territory of Chi (Shantung) the people ate one another. So an edict was issued asking people for whatever suggestions and criticisms they wish to make of the government

Fifth year: On account of a famine in Kwan Tung the Normally Constant Granary for Salt and Iron was abolished (probably this granary was for the maintenance of the price of salt and iron instead of for grains).

Reign Yuan Kwon, second year:

An edict says: "There has been no harvest for several years, and the people in the 'four corners' (everywhere) are all tired. The farmers have toiled at the cultivation of the land, but received no returns. They are suffering hunger and there is nothing to save them." So an edict was issued to remit public debts of the whole universe.

Reign Chain Chao.

On account of the hunger suffered by the people, envoys were sent to investigate the conditions and comfort the people.

§ 9. *Emperor Chen-ti or Ching-ti (tenth ruler), 32-7 B. C.*

REFERENCE: Han Book, chapter on Food and Commodities.

Reign Si-Ho, second year:

During the reign of Han Chen-ti, Chang Yu, the minister, owned 40,000 mows (240 square pu in each mow) and others who monopolized the land owned large tracts. In consequence, the people were in a very bad condition. When the Emperor Ei-ti came to the throne (7 B. C.), Shih Tan, the minister, petitioned the emperor as follows: "In the ancient times, all the sage kings adopted the system of Tsing Tien: therefore

they had very good government administration. When Emperor Wen-ti (179-157 B. C.) of our dynasty (Han) came to succeed to a period of military confusion from the time of Chow and Chin dynasties, the whole empire was empty and exhausted (without savings). At that time, Emperor Wen-ti emphasized and encouraged agriculture and mulberry (silk culture); and he led the people in a very economic life. As a result, the people began to have plentiful and sufficient provisions and supplies; and there was no danger that the fields of the poor would be gobbled up. Therefore there *was no necessity* at that time of adopting a policy *of limitation* as to the amount *of land-holdings* and also as to the number of slaves. At present (7 B. C.) the situation is different. After the empire has been peaceful for several generations, the influential and rich people or officers often possess enormous amounts of property, while the poor and weak people are suffering more and more. Of course, the best way in government administration is to follow the old traditions and to be very careful in making any changes. But in order to meet the emergency, we shall have to make certain changes if necessary. Therefore we ought to adopt the limitation policy." . . . At the same time, Kun Kwong, the prime minister, and Ho Wu, the minister of the Labor Department, petitioned the emperor as follows: "None of the princes, the marquises, the princesses, the landless marquises (no land attached to title), the officials nor the people should own land beyond the limit of 3,000 mows (240 square-pu mow) and the limit of slaves should be 200 persons for the princes, 100 for the marquises and princesses, and thirty for the landless marquises, the officials and the people."

After a period of three years, this law was to take effect, and any offender against it was to be punished by forfeiture of his holdings. Then the price of land and slaves fell. But two of the court favorites, Tin Fu and Tung Hsian, did not like the law because it was not convenient to them. Consequently the law was not enforced.

REFERENCE: Ku Kin Tsi Pin Liu.

Although the wealth of the people (at this time) was not as great as in the time of Wenti (179-157 B. C.), the population (at this time) was the greatest (either in the dynasty or in history up to that time).

REFERENCE: Tsur Fu Yuan Qwai.

Reign Hung Char, third year:

The Yellow River in the counties of Pu Hai, Tsing Ho, and Shen To (Shantung) had a flood which injured 31 districts. So envoys were sent to do relief work.

REFERENCE: Han Book, chapter on the Emperor.

Same reign, fourth year:

The farmers at this time lost their occupation, and flood and drought often occurred as complete disasters. As a result the wandering people in Kwan Tung were many, especially so in the provinces of Tsing (Shantung), Yu (Chili), and Tsi (Shansi). So an edict was issued exempting the districts (which had suffered more than forty per cent of loss from the disasters).

REFERENCE: Han Book, chapter on the Emperor.

Reign Yuan Sze, second year:

Frequently there was no harvest in Kwan Tung (Honan, Shansi, Chili, and Shantung). So an edict was issued to the effect that any officers or people who were willing to feed the poor or to contribute grain to aid in relief work were to be rewarded with official rank or exempted from taxes accordingly.

§ 10. *Emperor Ai-ti (eleventh ruler, tenth emperor), 6-1 B. C.*

REFERENCE: Han Book, chapter on the Emperor.

There was a flood in Yen Chuan County of Honan, so an edict was issued to exempt the suffering and also other districts from taxes.

In this year, Emperor Ai-ti succeeded to the throne, and an edict was issued as follows: ". . . At present, many princes, princesses, marquises, officers and influential and rich persons, etc., are keeping a large number of slaves; and they *are holding land* and houses *without limit.* In fact they are keenly competing with the common people for profit. Consequently many people have lost their occupations (lost their farms) and they are suffering severely from the burden of insufficiency. Therefore be it ordered that you officers should discuss the system of limiting the land holdings for the princes, princesses, marquises, rich persons, etc., *and no one should be allowed to hold more than thirty chuans* (3,000 mows, each mow 240 square pu) of land. As to the limit of the number of slaves, the princes should not keep more than 200, marquises and princesses 100, officers or people, 30. This number does not include slaves whose age is above 60 or below ten years."

§ 11. *Emperor Ping-ti (twelfth ruler), 1-5 A. D.*

REFERENCE: Han Book.

To establish thirteen officers of agriculture, each to take charge of one of the thirteen states for encouraging farming and the raising of mulberry trees. These officers frequently gave their tax incomes to the poor in order that they might have sufficient provisions.

Population under Emperor Ping-ti (late, near end of First Han): Doors, 12,233,562; mouths, 59,594,978.

REFERENCE: Do Yu Tung Din.

The population at this period is the largest for the Han Dynasty. When Wang Mang stole the throne and then later the Kun Si (New Again) and Tsi Mei (Red Eyebrows) rebellions took place, the population left in all the states together was only about two or three-tenths of the former number.

REFERENCE: Han Book, chapter on the Emperor.

There was a great drought and worms in different counties, especially so in the county of Tsing (Shantung). Conse-

quently the people wandered away and left their native places. Some officers offered to rent their farms and residences to the poor. The suffering people were exempted from taxes, and were given money, farms, houses, oxen, and seeds according to their conditions.

REFERENCES: Han Book, chapter on Geography; also Do Yu Tung Din.

Shih Ping Reign, second year:

Since Wuti extended the territory of the empire, the condition at Emperor Pingti's time was as follows: From east to west, 9,302 li; from south to north, 13,668 li. The total area of the empire was 145,136,450 chuans or 14,513,645,000 mows (240 square pu mow).

In the total area there were cities, residences, roads, paths, mountains, rivers, forests, and marshes which were unfit for cultivation amounting to 102,528,889 chuans.

In the total area, the land capable of cultivation amounted to 32,290,947 chuans; and the area actually cultivated was 8,270,535 chuans.

The doors at this time were 12,233,562; and the mouths 59,594,978. The land for every door was on an average 67 mow and 146 square pu; and the land for every mouth 13.87 mows (240 square pu mow).

§ 12. *Emperor Yu Tsu Yin (Baby Yin), 6-8 A. D.*

Reign Tsu-Shih, second year (same as Wang Mang, Reign Shih Chian Kou, first year):

REFERENCES: Han Book, chapter on Food and Commodities; also chapter on Wang Mang.

Wang Mang issued a statement as follows:

"In the ancient time, every eight families was provided with one Tsing; and one man with his wife received 100 mows (100 square pu in one mow). The tax system was one-tenth (tithe); the whole empire was sufficiently provided for; the people were rich; and their sounds of rejoicing everywhere.

This is what we call the system of Tang and Yu (Emperor Yao and Shun) which was followed by the Three Dynasties (Hsia, Yin and Chow). But the government of Chin Dynasty was reckless. It taxed the people heavily for the purpose of imperial provisions, and used up the strength of the people for the satisfaction of selfish ambition. It destroyed the system of the ancient sages, and abolished the Tsing Tien System. Consequently the condition of "eating up" arose, and greed appeared. Those who are strong (Han Dynasty) are holding land to the extent of thousands;[1] while those who are weak have not even a place to accommodate an awl. From now on (Wang Mang's time),[2] the land of the whole empire should be called imperial land, and the slaves should be called private dependents; they could neither be sold nor purchased. Those families which have (Han dynasty) fewer than eight male members, but have land amounting to more than one Tsing should distribute the surplus (one Tsing = 900 mows) of land to their relatives and neighbors. The offenders should be punished by death."

But the law was not justly arranged and the officials took advantage of that fact to make fraudulent gains. Hence many farmers and merchants lost their occupations and the whole empire was disturbed. Some people even wept in the markets or on the roads, and a great number of marquises, officials and people suffered punishment.

Same Reign, fifth year (same as fourth year of Wang Mang, -12 A. D.):

REFERENCE: Han Book, chapter on Wang Mang.

In 12 A. D. Chu Pao, an official, petitioned Wang Mang, saying: "Although Tsing Tien was the system of sage kings, it has been abolished for a long time. When the system of

[1] Thousands of chuans of land: 1000 chuans equal to 100,000 mows (Han scale).

[2] During the time of Wang Mang, the poor had no land, only borrowing it from the rich, and paying for it half of their produce as rent (statement of Tung Chung Shoo in Han Book).

Chow (government administration of Chow in general) was in a decayed state (near end of Chow) and the people did not know how to follow (?), the government of Chin realized that the best way of obtaining great benefit was to follow the will of the people. Therefore it abolished Tsing Tien, and established a new land system. And consequently it succeeded in unifying the whole empire. Up to the present time (12 A. D.) the people within the seas (every where) have not yet felt the defects of the system (system of Chin; private ownership). Therefore if we wish to stand against the will of the people, and to restore the dead foot-prints of thousands of years ago, it would be impossible to carry it out, without a gradual preparation for a period of a 100 years, even if Emperor Yao and Shun should live again to-day.

"Now (12 A. D.) the empire is but newly settled (after the disturbance of Civil War), and the mass of the people newly attached to the administration (Wang Mang's administration). So I (Chu Pao) really do not know how we can possibly carry out such a purpose."

Wang Mang realized the bad feeling of the people and decreed that the imperial land and private dependents could be sold without prohibition. So the Tsing Tien System was again abolished.[1]

III. *Second or Eastern Han, 25-220 A. D.*

Population Figures for Later Han.

REFERENCE: Later Han Book.

		Doors (families)	*Mouths (persons)*
25-57 A. D.	Kwong Wu-ti	4,271,634	21,007,820
58-75	Ming-ti	5,860,572	34,125,021
76-88	Chang-ti	7,456,784	43,356,367
89-105	Ho-ti	9,237,112	53,256,229
107-125[2]	An-ti	9,647,838	48,690,789
126-144	Shun-ti	9,698,630	49,150,220
145	Chung-ti	9,937,680	49,524,183
146	Tsui-ti	9,348,227	47,566,772
147-167	Whon-ti or Hwen-ti	10,070,006	50,066,856

[1] It had been restored by Wang Mang in 9 A. D.

[2] Wars and famines account for the decreases during these years.

REFERENCE: Do Yu Tung Din.

Whon-ti	10,677,960	56,486,856

§ 1. *Emperor Kwong Wu-ti (first emperor), 25-57 A. D.*

REFERENCE: Han Book, chapter on Chang Kan.

When Chang Kan was the officer of Yu Yang County (Chili) he opened more than 8000 chuans of fields (new fields ?) at Hu-lo and consequently he became rich and prosperous.

REFERENCE: Later Han Book, chapter on the Emperor.

More than ten county officers who committed the crime of measuring the fields inaccurately were sent to jail and died.

Record on Sacrifice (Che Ssi Tsi).

The rice fields (wet fields) belonging to the temples of the imperial ancestors, were cultivated.

REFERENCE: Ku Kin Tsi Pin Liu, chapter on Agricultural Administration in Han and Tang Dynasties.

After the period of wars and confusion, only 20-30 per cent of the whole population was left. There were drought and worms in different districts and the price of grain rose continuously. An edict was issued ordering officers to comfort the people and not to neglect their duties. Land taxes were reduced as in previous periods. Consequently oxen and horses were found all over the country (indication of peaceful conditions, otherwise such animals would be in use for transportation in war) and the doors in the villages were not closed (no fear of robbery).

REFERENCE: Han Book, Government Relief Work.

Reign of Chain Wu.

Fifth year: During the fourth month there was a long drought. Consequently the wheat crop was injured, and the autumn crop was not yet sown (rice). So an edict was issued pardoning all guilty persons in the different counties.

Sixth year: On account of flood and drought an edict was issued ordering different counties to contribute grains.

Ninth year: The wandering people in Lung Si (Kansu and Shensi) were relieved.

REFERENCE: Later Han Book, chapter on Chang Kan.

When Chang Kan was the district officer of Yu Young (Chili) he opened and cultivated rice fields (wet fields).

§ 2. *Emperor Ming-ti (second emperor), 58-75 A. D.*

REFERENCE: Han Book.

An order was issued to local officers to encourage the people in farming and in the raising of mulberry trees; and not to disturb them.

REFERENCE: Ku Kin Tsi Pin Liu.

Emperor Shen Chung (Ming-ti). People were at rest (cared for by the emperor) and more land was opened and cultivated. This was considered a prosperous period.

REFERENCE: Later Han Book, chapter on the Emperor.

The public fields were given to the people.

Chapter on Liu Ban.

On account of plague among the cattle (oxen), flood and drought, the cultivated fields were greatly reduced. So people were ordered to adopt the method of Chu-Sowing (sowing in rows or strips) so as to increase the amount of chuans and mows.

REFERENCE: Fan Sun Tsi.

Quoted from his book: "For superior farmers, the system of Chu-fields consists of chus of 6 in. by 6 in. by 6 in, and the distance between them is 7 in. One mow contains 3,800 chus. Each couple of one male and one female plants 10 mows of this land. As to the harvest in the fall, every chu produces 3 sen of grain (one one-hundredth load is one sen), so every mow receives 100 loads. In the case of mediocre farmers, the

system of Chu-Tien [1] is 7 in. by 7 in. square and 6 in. deep. The distance is 2 ft. One mow contains 1,027 chu. Every couple of one male and one female plants 10 mows and the harvest in the fall is 51 loads of grain for every mow. In the case of inferior farmers the system of Chu-tien is 9 in. by 9 in. square and 6 in. deep, and the distance is 3 feet. As to the harvest in the fall, one mow receives 28 loads. In case of drought, water is applied for irrigation.

REFERENCE: Later Han Book, chapter on the Emperor.

The waterways along the Pain River (Honan) were built up completely. The low fields near these waterways were rented to the poor; and the influential and strong were not allowed to monopolize the entire benefit.

REFERENCE: Ku Kin Tsi Pin Liu, chapter on Agricultural Administration of Han and Tang Dynasties.

The emperor offered pardons to all guilty persons in the universe because there were good harvests in rice and wheat.

REFERENCE: Later Han Book.

Reign of Yuan Pin.

Third year: On account of famine and disasters, an edict was issued ordering local officers to do their duty and to report frankly on conditions.

Eighteenth year: On account of drought, an edict was issued awarding official rank on the basis of grain contributions for government relief work.

§ 3. *Emperor Changti (third emperor), 76-88 A. D.*

REFERENCE: Han Book.

The Emperor Changti succeeded to the throne (18th year, Reign Yuan Pin of Ming-ti) and an edict was issued to exempt

[1] Chu Tien System was invented by Yi-Yuan, prime minister of Emperor Tong, first emperor of Yin Dynasty, 1766 B. C., and was practised later from time to time. It was designed especially as a protection against drought.

the whole country from land taxes and also to give grain to the poor.

Edict: "In recent years many oxen have died of disease, and the amount of cultivated land has decreased; the price of farm-produce is high and in consequence many people have left their own places. The local officers are ordered to encourage farming and the raising of mulberry trees."

REFERENCE: Han Book, chapter on the Emperor.

Reign Chain Tso.

Second year: On account of famine, an edict was issued prohibiting extravagance.

Fifth year: On account of disaster and drought, an edict was issued urging the people to prepare for the emergency of unproductive years.

Reign Yuan Ho, first year.

Officers in different counties were ordered to call for volunteers who owned no land, to move to other places where the fields were fertile. Wherever these people went, they were given public fields. The government hired laborers for them and loaned seeds, provisions and farming implements to them. They were exempted from taxes for five years and from other taxes (service, etc.) for three years. Besides this, they were free to return to their original homes later on if they so desired.

REFERENCE: Ku Kin Tsi Pin Liu, chapter on the Agricultural Administration of Han and Tang Dynasties.

An attempt was made to find out accurately the number of poor people and to make loans to them.

An edict was issued to rent all the uncultivated fertile fields to the poor, and to give them seeds and provisions, so as to utilize the benefit of the soil to the full extent. Those having no oxen for plowing were given money to hire them.

Chow Suen Chun, officer of one of the districts, opened and connected ditches, etc., in more than several scores of places,

so as to extend the benefits of irrigation. The people profited greatly and had surplus savings.

Do Si (officer of another of the districts) made floats of wood, and cast farming implements. The people were pleased because they could accomplish more with less expenditure of labor. He (Do Si) also repaired and built up reservoirs and ponds and opened the farm lands widely. Within this district every family had sufficient and some were even rich.

REFERENCE: Later Han Book, chapter on Chin Penn.

When he was promoted to be the county officer of Shan Yang (south of the mountain—Shansi ?) he brought under cultivation several thousand chuans of rice fields (wet fields). He classified these fields in three grades according to their fertility. Every district was ordered by edict to follow his methods.

§ 4. *Emperor Ho-ti (fourth emperor), 89-105 A. D.*

REFERENCE: Han Book, chapter on the Emperor.

Reign Yuan Yuan.

Fourth year: On account of drought and worms an edict was issued to exempt people from land taxes.

Fifth year: An edict was issued reducing the number of horses in the government stables, and the people were allowed to work on the imperial gardens. Officers were ordered by edict to report the number of doors and mouths which were poor and incapable of making provision for themselves. Government granaries were opened to relieve the people.

People were ordered to raise vegetables and were allowed to work on the government ponds and reservoirs. The edict says, " The wheat crop last year was meagre, so I (emperor) am afraid that the provisions of the people may be insufficient."

Public fields were rented to the poor.

REFERENCE: Han Book, chapter on Fan Twain.

Fifth year (continued): Fan Twain was appointed the county officer of Chu Lo (Chili) just after the period of

famine and hunger; the people had wandered away and there were almost no families left. Fan Twain directed and taught the people about agriculture and the raising of mulberry trees, using a great variety of devices. Within one year's time, the grains became plentiful and they were several ten times cheaper.

REFERENCE: Han Book, chapter on the Emperor.

Ninth year: Different counties were ordered by edict to feed wandering people. On account of drought and worms people were exempted from land taxes and also taxes on mountains, woods, ponds, etc.

Twelfth year: The suffering counties were given government aid and the poor were given grain and clothing.

Fourteenth year: On account of a great flood in the states of Yen (Shantung) and Chin (Hupeh), the people in those states were exempted from half the taxes.

Sixteenth year: Officers were ordered by edict to lend seeds and provisions to the poor. The people in the states of Yen (Shantung), Yu (Honan), and Hsu (Kiangsu) and Tsi (Chili) were prohibited from selling wines. The government also hired oxen for the poor and the whole universe was exempted from half the taxes.

§ 5. *Emperor An-ti (sixth emperor), 107-125 A. D.*

REFERENCE: Ku Kin Tsi Pin Liu.

Flood and drought; people ate one another. The emperor loaned the imperial land around the edges of ponds to the poor.

REFERENCE: Later Han Book, chapter on the Emperor.

Reign Yuen Tso.

Third year: There was a great famine in the capital, and human flesh was eaten. Thus any officer or person who contributed money or grain to the government was rewarded with official rank. The imperial woods (hunting land at Kwon City) and gardens were rented to the poor, and they were urged to plant Sauh wheat and vegetables.

Fourth year: The people in Shangfoo (three suburbs of

the capital—Shensi ?) were excused from back dues of the previous year. The poor in Shang Chaun (Shensi ?) and Kiukiang (Kiangsi) were fed with government grain, and the salaries of all the officers were reduced.

Sixth year: The taxed rice (rice collected as land taxes) was transported from the counties of Ling Ling (Hunan) to relieve the hungry people in Nan Yang (Honan), Kwongling, Shar Pi, Penn Chen, Shangyang (Kiangsu), Yu Kiang (Anhwei), and Kiukiang (Kiangsi).

Reign Yuan Tso.

First year: There were drought and worms in the capital as well as in different counties. An edict was issued to select good men among the people (for government officials). Another edict was issued to exempt people in Shang-foo (the three suburbs of the capital Shensi or Honan) from land and mouth taxes.

Second year: An edict was issued to feed the people in Shangfoo (the three suburbs of the capital Shensi or Honan) and in the six counties of Bin and Liang states (Shansi and Chili) with government grain. On account of drought and worms, different states and counties were ordered to destroy the worms and save the people.

Fourth year: There was an oversupply of rain and flood in the capital and in different counties (10 places) so an edict was issued ordering the officers not to trouble the people.

Fifth year: There were droughts in five places so an edict was issued to feed with government aid the poor who had suffered from the drought.

Reign Chain Kwon, first year:

There was an overabundance of rain and flood in the capital and different counties. Also on account of an earthquake, the people were exempted from land taxes, and those who had suffered too severely from the disaster were exempted also from the mouth taxes.

Reign Yen Kwon, first year:

On account of great rain, the people were exempted from taxes.

§ 6. *Emperor Shun-ti (seventh emperor), 126-144 A. D.*

REFERENCE: Later Han Book, chapter on the Western Barbarians.

Waterways were restored in Saw Fong, Si-Ho, Shang Twain, Che Ho, etc. districts, so as to establish the soldiers' farms.

REFERENCE: Later Han Book, chapter on the Emperor.

Reign Yuen Chain.

First year: On account of plague and flood the people were exempted from half the taxes.

Third year: On account of an earthquake in Han Yang (Hupeh) an edict was issued to exempt the people from taxes for this year and also to feed the poor people in Han Yang (Hupeh) and Ho-Lay (Honan) with government grain.

Fourth year: There was too much rain in five states, so envoys were sent to investigate accurately about the number of the dead (from starvation) and of the wandering, to bury the dead bodies and to feed the wandering with government grain.

Fifth year: An edict was issued exempting the suffering poor people in different counties from taxes.

Sixth year: An edict was issued exempting the people in Tsi State (Chili and Shansi) from the taxes for this year. (In this state the people deserted their occupations and continued to wander away and leave their places at this time).

Reign Yang Char.

First year: There was flood in the state Tsi (Shansi and Chili) so an edict was issued to relieve the people there with government grain, and also to exempt those who were especially poor from taxes.

Second year: On account of famine and hunger, the people in Kwai Gee of Wu County (Chehkiang) were loaned seeds and provisions.

Reign Yuen Ho.

Fourth year: On account of drought the people in Tai Yuan (Shansi) were relieved with government grain and they were also exempted from taxes.

§ 7. *Emperor Hwen-ti (tenth emperor), 147-167 A. D.*

REFERENCE: Later Han Book, chapter on the Emperor.

Reign Chain Ho.

First year: The people in the states of Chin (Hupeh) and Yang (Kiangsu) were relieved with government grain (many people had died of hunger).

Third year: People who could not supply themselves and who had to wander away were aided with government grain (dead bodies were all over the capital [Honan] and also on the farms of the different districts).

Reign Yuen Shin.

First year: Different counties were ordered to relieve those people who were helpless and without sufficient provisions. The people were poor and hungry and several hundred thousand doors were wandering over all the roads; the conditions were especially bad in the Tsi state (Shansi and Chili).

Second year: There was no harvest in the five kinds of grain. So different counties were ordered by edict to plant Wu Tsing (grass) so as to increase the provisions. The people were prohibited from selling wines.

Reign Yuen Sow, first year:

There was a famine in the State Tsi (Shansi and Chili) and the people ate human flesh. So different states and counties were ordered by edict to relieve the poor and the weak.

REFERENCE: Ku Kin Tsi Pin Liu.

Chay Tsiu says: "At present in the region of Tsing, Hsu, Yen, and Chi states the population is dense and the fields are narrow, so that people cannot get sufficient provisions. But on the other hand, in the neighborhood of Shangfoo (the three

suburbs of the capital) in the Liang and Yu states, the population is sparse and many fields are left vacant and uncultivated. As a rule, the natural tendency of the small man is to be satisfied with his native land, and to weigh carefully the advisability of moving. He prefers rather to suffer hunger where he is than to go to some happy land. So the government ought to move to the wide country such poor people who cannot make a living by themselves. It is the best way for opening fields and relieving people." But Chay Tsiu's idea was not adopted.

During the rebellion of Dung Chok (end of Han Dynasty) the "universe" was in a confused state, and people lost their occupations. The price of grain increased to more than fifty million (?) a load. Many people ate human flesh.

§ 8. *Emperor Lingti (eleventh emperor), 168-189 A. D.*

REFERENCE: Later Han Book, chapter on the Emperor.

Reign Si Pin, fourth year:

There was a great flood and worms, so an edict was issued to connect waterways so as to benefit the people. Those people who had suffered disasters were exempted from the land taxes either partly or entirely.

§ 9. *Emperor Hsien-ti (twelfth and last emperor), 190-220 A. D.*

REFERENCE: Tsin Book.

During the reign of Hsien-ti the people in Kwan Chung (Shensi) that wandered to Chin Chow (Hupeh) were more than 100,000 families. When they heard that their native places were peaceful and quiet, they were anxious to go back; but they could not find any occupations (having lost the same). Therefore the government established the director for salt taxation and used the said income to buy oxen to give to these people who returned to their homes.

REFERENCE: Later Han Book, chapter on the Emperor.

Reign Shin Pin, first year:

There was a great drought and famine, so the government

used the rice from the Tai Chang (Great Granary) to make rice soup so as to feed the people. (In this year one load of rice was worth 500,000 [cash?] and one load of beans or wheat was worth 200,000). People became cannibals and bones from the dead bodies were scattered all over the country.

REFERENCE: Chang Yen, chapter on Reformation and Modification (Sen Yi).

Since the Tsing Tien System was abolished, some influential people and merchants have become exceedingly powerful and rich. They have residences (houses) in every part of the country, and their land property is connected from state to state. Having no official rank or titles they are wearing official gowns nevertheless. Though they are not the heads of any organizations, yet they have servants in huge numbers. The honor and happiness of these people exceeds that of any state princes, and their influence and power are equal in strength to that of any state officer. They have money sufficient to purchase anything desired and they are not subjected to punishment even if they have committed crimes. Many assasins and daring persons are at their service. Consequently the poor who are weak in strength and mean in wisdom, are suffered to be clothed in rags and to rest on poor beds; and dying, there is no one to give them burial. Neither do they dare complain, though suffering injustice and poverty.

All such evil conditions, though partly due to the laxity of the law, arise chiefly because of the fact that people are entitled to hold land property without any limitation.

Therefore if today we wish to establish the justice of a universal peace, to lay the foundation for the best of administrations, to equalize the wealth of the people in richness and poverty, and to correct the customs of extravagance prevailing side by side with parsimony, the best way and the only way, is to go back to the Tsing Tien System. Of this we are assured, that although there are certain disadvantages in making a change, yet we ought nevertheless to restore the old system.

CHAPTER V

The Three Kingdoms, 190-264 A. D.

I. *The Wai Kingdom, 220-264 A. D.*

§ 1. *Wai, in general.*

Reference: Wai Record of the Three Kingdoms, chapter on Chen Hwen.

Chen Hwen digged up ponds at the boundary lines of the two districts Show and Shun (Honan ?) and established rice fields. Consequently the harvest was good every year, and the number of cultivated fields increased from year to year. Thus the taxes and rents were multiplied and the people received the benefit.

Same, chapter on Liu Fu.

When Liu Tsin, the son of Liu Fu, was directing the military forces at Hopeh (north of the Yellow River—Chili, Shensi, Honan) he built waterways to irrigate the fields at the north and south of Gee (Chili) and the rice crop was planted. Consequently the people were benefited.

Same, chapter on Wong Gee.

He says, "At present (the Three Kingdoms) there are two rivers, Tzo and Chang, in the county of Kiang Liu (Hupeh) to irrigate thousands of fertile fields."

Same, chapter on Hsu Miao.

When Hsu Miao was the officer of Liang Chow (state—Chili ?) he opened wet fields (water fields) there on an extensive scale, and called the poor people as volunteers to cultivate them.

Same, chapter on Chen Young.

Ponds and dykes were established and rice fields (wet) were newly opened. In one year there was a great harvest.

Same, chapter on Tu Gee.

Giving specific instructions he taught the people how to raise oxen, horses, chickens, pigs, dogs, etc. People were encouraged to work on farms, and every family had abundance.

When Sze-ma Lan was the officer under Tsao Tsao (father of the first emperor of Wai) he proposed that the Tsing Tien System be restored, saying:

"The reason why we were unable to restore the Tsing Tien System successfully before was because all the property (land) had belonged to the people for generations, and it would have been very difficult for the government suddenly to take away the land from their hands. But now, after a great period of confusion, all the people are scattered, and the land is left without owners. Thus all of it belongs to the government as public fields. So we ought to take advantage of this opportunity to restore the Tsing Tien System."

§ 2. *Emperor Tai Tso (of Wai State).*

REFERENCE: Record of The Three Kingdoms, Record of Wai Kingdom, chapter on Tai Tso.

Tai Tso says: "The best way to bring peace and prosperity to the country is to make the army strong and the food sufficient. Thus, the people of Chin unified the whole universe by putting emphasis on farming (abolished Tsing Tien); and the Emperor Wu-ti of Han Dynasty conquered the barbarians (Si Yu) on the western border by adopting the system of Ten Tien (soldiers' farms). These are the good examples of the previous dynasties."

Same, chapter on Shar Hou Twain (an officer of Wai Kingdom).

When Shar Hou Twain was the county officer of Tsi Yin (Shantung ?) there were a great drought and worms. So he dammed up the water of Tai Sauh to make reservoirs and urged

the people to plant the rice crop. Consequently the people were benefited.

§ 3. *Emperor Wen-ti (first emperor), 220-226 A. D.*

REFERENCE: Tsin Book.

To teach people to make wagons and to raise oxen so as to aid their work on the farms.

REFERENCE: Record of the Three Kingdoms, Wai Kingdom.

Reign Huang-tso.

Third year: There was a famine in the state of Tsi (Shansi and Chili).

Sixth year: The government relieved the poor in east Hsu Chang (Honan).

§ 4. *Emperor Mingti (second emperor), 227-239 A. D.*

REFERENCE: Tsin Book, chapter on Sze-ma Tsui.

He petitioned the emperor to prohibit all officers and people from working on branch occupations, urging them to devote their efforts especially and exclusively to farming.

Reign Tsing Lung, third year:

Five million loads of grain were transported from Chang City (Shensi) to relieve the famine of Kwan Tung (Honan, Shansi, Shantung, Chili).

REFERENCE: San Kuo Tzu, Record of the Three Kingdoms.

Reign Tsing Tso, first year:

The people in the states of Tsi (Shansi and Chili), Yen (Shantung), Hsu (Kiangsu) and Yu (Honan), who had suffered from flood, were relieved and saved by government aid.

§ 5. *Emperor Fei-ti (third emperor), 240-253 A. D.*

REFERENCE: Tsin Book.

There was a famine in Kwan Chung (Shensi) so farmers were transported to cultivate the fields in Shan Wah District (Shensi).

II. *The Woo Kingdom—of the Three Kingdoms.*

REFERENCE: Ku Kin Tsi Pin Liu, chapter on the Agricultural Administration in Han and Tang Dynasties.

At the time of Sen Hao (one of the late kings of Wai) there were no savings in the granaries.

REFERENCE: San Kuo Tzu, Record of the Three Kingdoms.

Emperor Woo Ta Ti.

There had been war between the states for a long time. People left their homes and the farmers rebelled. The emperor ordered all the army officers to expand the farming fields.

REFERENCE: San Kuo Woo Tzu, Woo Record of the Three Kingdoms, chapter on Yu Mon.

The chief of the state Wai sent Chu Kwong to be officer of Nu Kiang County and stationed him at Wen (Anhwei). He opened extensive rice fields there.

III. *Sauh Kingdom—of the Three Kingdoms.*

REFERENCE: San Kuo Sauh Tzu, Sauh Record of the Three Kingdoms.

Chu Luo Liang reported to the emperor of Sauh Kingdom as follows: "In the city of Chen-tu (capital of Szechuen) there are 800 mulberry trees and fifteen chuans of poor trees. So the sons and younger brothers naturally obtain the surplus for provisions and clothing."

CHAPTER VI

The Six Dynasties (southern),[1] 265-617 A. D.

I. *Tsin Dynasty, 265-419 A. D.*

Agricultural Policies and Conditions, Beginning of Tsin.

Reference: Ku Kin Tsi Pin Liu.

At the beginning of Tsin the *government paid special attention to plantings and harvests*, and all the districts were ordered to utilize the fertility of the soil to the full extent. Wandering and leisure people, merchants (traveling), etc., were prohibited.

Wong Hung, officer of Tso County, *opened more than 5000 chuans of waste land.* During the reign of Tai Sze (Wu-ti) the granaries were not sufficient, and Kwan Yu (right or west of Kwan-Shensi) was hungry and poor. The government wished to promote greatly the farming occupation so as to make good crops abundant.

Chao Shih says: "At present there are thousands of cities in the universe, and many people are wandering around and giving up their occupations. They are *occupying fields in name, but in fact they do not work on farms at all.* Taking the nine states (figuratively speaking for the whole country) of Great Yu into consideration, the number of these people exceeds 10,000. The government may prohibit severely and order the district officers to investigate carefully. In the case of a person not working on his farm, let the punishment be applied even

[1] During the period of the "Six Dynasties," north China was occupied by barbarians until 581 A. D., when Sui Dynasty, the last of the Six Dynasties, unified the empire once more. Therefore the so-called Northern and Southern Dynasties.

unto his neighbors in the same district. This is within the reach of human control.

"Especially in the Three Wais (Shansi) the fields are narrow and the population dense. Besides, the *animals such as pigs, sheep, horses, etc., are all over the fields.* But all these fields for the animals should be given to those people who own no land or who own not enough land. At present although some of these pastures have been opened for farming purposes, still there are pastures left. The government ought to make these animals such as horses, oxen, sheep, pigs, etc., get grass from unoccupied land, and let those wandering people rent some fields to earn their livelihood. This is a utilization of the benefit of soils that is within our control."

A. *West Tsin, 265-316 A. D.*

§ 1. *Emperor Wu-ti (first emperor of West Tsin), 280 A. D.*

REFERENCE: Tsin Book, chapter on Food and Commodities.

When Tsin Wu-ti unified the empire in 280 A. D., the great empire had only a sparse population, land ownership was either destroyed or changed, and most of the land practically belonged to the government as the land owners were either extinguished or had deserted during the period of military confusion.

Thus Wu-ti was able to distribute[1] the land to the people. The system was as follows: "Among all the people, each man (13-65 years of age) received 70 mows of land; and each woman (13-65 years of age) received 30 mows (Tsin measure).[2]

"In addition to the above, every regular male adult (16-60 years) received 50 mows of taxed land (land for which tax payment was required) and every female regular adult (16-60 years) received 20 mows of taxed land. Also every second-

[1] This is the first instance of successful restoration of the system of public land distribution since its abolishment by Shang Yang (the short-lived attempt of Wang Mang excepted). Hence it is known as the beginning of the second period of public land distribution.

[2] See table for actual measurement.

ary male adult (13-15 years) received 25 mows of taxed land, and secondary female adults (13-15 years) received nothing."

Beside the above rules, there was a law for the distribution of land to officials,[2] as follows: First rank, 5000 mows (Tsin measure); second rank, 4,500; third rank, 4000; fourth, 3500 mows; fifth rank, 3000; sixth, 2500; seventh, 2000; eighth, 1500; ninth, 1000.

The next emperor after Wu-ti (Hwaiti) was not a capable one; and the whole empire again fell into disorder. Consequently the law of public distribution of land was in force for only a short time, probably thirty years.

REFERENCE: Tsin Book, chapter on Foo Yuan (an official).

Reign Tai Sze.

Foo Yuan, the censor, petitioned thus to the emperor: ". . . At the beginning of the Wai Kingdom (of Three Kingdoms) the policy of agricultural administration was intensive rather than extensive. Therefore, at that time, even in the dry fields, the annual harvest was as high as over 10 loads per mow of land; while in wet fields, the harvest was several tens of loads of grain per mow of land. Recently (Tsin), however, the tendency has been to increase the amount of land under cultivation (by each individual farmer) especially in the case of soldier farmers (formerly soldiers, or Tan Tien farmers—probably cultivated the government land). Consequently much of the farm work has been neglected. As a result, the annual harvest of one mow of land has been only several loads, and some of the land is not yielding enough return to pay for

[1] Thus from 16-60 years of age every man received 120 mows of land, of which 50 mows were subjected to land tax; and every woman received 50 mows, of which 20 were taxed. Every man from 13-15, and from 61-65 years of age received 95 mows of land, of which 25 were taxed; and every woman of these secondary ages received 30 mows without being taxed.

[2] The amount that the official received is not much indication of the general size of holdings. However it helps further to complete the picture of the conditions of the times.

the seeds. It is not that we have a different world today than we had in the past, nor because we are suffering from any special disasters and injuries (flood, drought or worms). The whole trouble lies simply in the fact that we are cultivating too much land at the same time, and much of our farm work (practice) has been unduly neglected . . . "

Seventh year: There was a famine in the states of Yung, Liang and Chin (Shensi), so an edict was issued to abolish all capital punishment in these states.

On account of the overflowing of the Yi and Loh rivers (Honan), an edict was issued to relieve the people there.

Reign Shien Ling.

Second year: The government established the Tai Chang (Great Granary) and Normally Constant Granary. Those districts which suffered from flood were exempted from taxes of grains and clothes.

Third year: There was a great flood in the states of Yen (Shantung), Chin (Hupeh), Yi and Liang (Szechuen). The autumn crops (rice) were injured, so an edict was issued to relieve the people there.

Fifth year: On account of famine, the emperor reduced his food to only half the number of courses.

REFERENCE: Tsin Book, chapter on Foo Yuan.

Fifth year: Foo Hsien (son of Foo Yuan) reported to the emperor: " The population of today is only one-tenth that of the Han Dynasty. . . . At present the people who are not engaged on farms are innumerable. Even assuming that all the five crops yield good harvests, they would be barely sufficient to carry them over (from year to year). And should there be disasters and injury, there would surely be insufficiency of provisions."

Reign Tai Kong.

Fourth year: There was a great flood in the state Yen (Shantung) so the people in that state were exempted from taxes.

REFERENCE: Tsin Book, chapter on Food and Commodities.

The county officer of Chi county (Honan), Wong Hung, directed and encouraged the people to open more than 5000 chuan of waste land. So he was rewarded by the emperor with 1000 loads of grain.

REFERENCE: Do Yui's report to the emperor (statesman at beginning of Tsin).

At present the flood disaster is especially bad at the southeast. There has been no harvest in any of the five crops, and moreover the properties have been greatly injured. Those low fields are all become muddy and clogged up, while much of the high land is poor and lean. Even during the present seasons of summer and fall, when people have vegetables for their food, already some people have not been able to make sufficient provisions. When the winter and spring come, the fields will not have green grass even, so the people will look for the official grain for their living. At present the government ought to break up to a great extent all the ponds or reservoirs at the eastern boundary of the states of Yen (Shantung) and Yu (Honan) and conduct and open the water courses in such a way that they will run naturally. The muddy and reclaimed fields after the water has gone will receive several chung in one mow (per year). When the spring comes, the five grains can be planted intensively and the harvests will be plentiful. . . . In the old times (previous periods) the territory of the South East was merely exploited for its grass land, and the population there being sparse, the people received the benefit of the method of fire farming. Recently, the population has increased every day and many ponds and dams were broken down each year. Therefore good fields have been growing weeds and the people have been staying in swamps. *Both the dry and wet fields have lost their adaptabilities*; the pasture works have put an end to the raising of grains; and the trees and woods all become dry at once. This is all due to the harm done by the ponds. When there are too many ponds, the

soil will become thin (poor), and the water shallow. Consequently water will be accumulated (on the surface) and will not drain down to moisten the soil. Therefore whenever there is rain, the water will overflow, causing flood, and even going over to the dry fields. . . . So an edict should be issued to the effect that all the district officers of "2000 loads" (those receiving such salaries) should see to it that all the old ponds and reservoirs built up by Han Dynasty and also small ponds in mountains and valleys built by private families, be repaired and fixed so as to store the water; and that those ponds which have been built since Wai Kingdom (one of the three Kingdoms) and those formed by rainfall be all broken down and drained so as to benefit the fields.

The emperor adopted Do Yui's recommendation.

REFERENCE: Tsin Book, chapter on Do Yui.[1]

When Do Yu was directing the military forces at Chin Chow (Hupeh) he restored the remnants of works left by Chao Shen Chen (Han) and forced the water from Tsi and Yu, to irrigate more than 10,000 chuans of plain fields, and all the people received the benefit. Among the old water courses, there were only the Han and Mein Rivers, which ran to Kiang Lin (Hupeh) at a distance of more than 1000 li, but there were no connections on the north. Do Yui then opened Yang Kow (Yang Mouth) from the Shar River (Hupeh) to Bah Lin (Hunan) at a distance of more than 1000 li. In this way, not only the dangerous drifting of the Yangtze River was (drained) reduced in force, but also the transportation of Lin Kwei (Hunan) was facilitated.

Population.

REFERENCE: Tsin Book.

After Tsin conquered Wu (therefore making a combination of the three states) the whole population totaled:

2,456,840 doors (families) and 16,163,863 mouths.

[1] Do Yui was a great statesman of the beginning of Tsin, who was instrumental in conquering the Wu and Sauh Kingdoms (two of the three kingdoms which immediately followed the Later Han Dynasty).

§ 2. *Emperor Hwai-ti (second emperor), 290-306 A. D.*

REFERENCE: Tsin Book.

Reign Yuan Kong.

Fifth year: There was a great flood in the states Chin (Hupeh), Yang (Kiangsu), Yen (Shantung), Yu (Honan), Tsing (Shantung), Hsu (Kiangsu); and the government carried out relief work.

Seventh year: There was a famine in Kwan Chung (Shensi) and the price of rice was as high as 10,000 cash per load. So an edict was issued that those wishing to sell their relatives, would not be prohibited by the government.

Eighth year: There was an earthquake, so grain was issued from the granary to relieve the hungry in the state Yung (Shensi).

B. *East Tsin, 317-419 A. D.*

§ 1. *Emperor Yuan-ti (first emperor), 317-322 A. D.*

Population at times often shifting.

REFERENCE: Sui Book, chapter on Food and Commodities.

Since the confusion of the central part of China (due to Northern Barbarians) Yuan-ti had to come to stay in Kiang Jau (left or east of river). People in the north who left their homes fled to the south and became the so-called Chau Yuan (strangers or aliens). They all used the names of their old districts to name the new. Quite often they were scattered, having no definite place to stay.

REFERENCES: Tsin Book, chapter on Fu Chien (the chief of the Barbarians), also Tsur Fu Yuan Qwai.

Because the rains and drought came not at the proper seasons in Kwan Chung (Shensi) he opened up the upper current of the King River, dug mountains and established embankments; he also connected the waterways and extended the ditches, so as to irrigate the salty fields. He finished the works

just before the spring arrived and the people received great benefit.

REFERENCE: Tsin Book, chapter on Chang Kan.

He established reservoirs at Chu-oh and Sin Feng to irrigate more than 8000 chuans of fields.

Reign Tai Shiu.

First year: There was a famine in the three counties of Kiangtung (east of Yangtze River, Kiangsu). The government conducted relief work.

Second year: There was famine three times in Shan Woo (Kiangsu) so an edict was issued to cut off all the national expenditures except for military purposes. The granary was opened to relieve the people.

REFERENCE: Tsin Book, chapter on Food and Commodities.

Same year: Yin Jen reported to the emperor: ". . . the people who are now laborers, merchants, strangers, wanderers, slaves, servants, etc., but who do not wish to work on the farms and on mulberry (silk culture) amount to several hundred thousand. . . . Some time ago, the wandering people used to go to Tung Wu (Kiangsu) but now Tung Wu is rather lean, so all of them have come back from Tung Wu to Kiangsi. *When the good fields have been left vacant and abandoned* (uncultivated) *for a long time, they will be much more easily worked* by subjecting them to the method of fire, plowing and water cultivating."

§ 2. *Emperor Ming-ti (second emperor East Tsin), 323-325 A. D.*

REFERENCE: Tsin Book.

Won Chau asked the emperor for orders to appoint a farm official to encourage and teach the people about farming and the raising of mulberries.

§ 3. *Emperor Chen-ti (third emperor), 326-342 A. D.*

REFERENCE: Tsin Book, chapter on Tao Wai.

At this time the people were hungry, and the price of grain

was high, especially so in Shan Wu (Kiangsu); so the government conducted relief work.

There was a famine in Yang Chow (Kiangsu) and Kwai Gee (Chehkiang) so the government opened the granary to conduct relief work.

§ 4. *Emperor Ai-ti (sixth emperor East Tsin), 362-365 A. D.*

REFERENCE: Tsin Book.

There was a drought in the fourth month, so the government conducted relief. In the tenth and eleventh months, the poor were given rice, five loads per person.

§ 5. *Emperor Chien Wen-ti (eighth emperor of East Tsin), 371-372 A. D.*

REFERENCE: Tsin Book.

An edict to relieve the people in Shangum (Kiangsu).

§ 6. *Emperor Hsiao Wu-ti (ninth emperor East Tsin), 373-396 A. D.*

REFERENCE: Tsin Book.

On account of flood and drought, the taxation was reduced, and expenditures for imperial provisions and other things were cut down.

On account of famine, the people were exempted from taxes, and they were also given rice.

§ 7. *Emperor An-ti (tenth emperor East Tsin), 397-418 A. D.*

REFERENCE: Tsin Book, chapter on the Emperor.

The fields at Ling Chi and Hu Sou (Shantung and Kiangsu) which had been set aside for covering the expenditures of the empress, were given to the poor.

On account of famine the people were prohibited from selling wines.

On account of decrease in population and production, an edict was issued to reduce the imperial provisions.

II. *Sung Dynasty (House of Liu, Second of Six Dynasties), 420-478 A. D.*

§ 1. *In general.*

REFERENCE: Do Yu Tung Din.

In the district of Shan Yin (north of mountains, Shansi) the population was too great and the land too scarce. Therefore some of the families possessing no property, were moved to the districts of Yu Yao, Mow, and Tsen (Chehkiang) to open and cultivate "lake fields." (Fields that were beside lakes or left by lakes).

REFERENCE: Sung Book, chapter on Mow Show Tzi.

When he was an officer of Nan Twan County he restored the Chao waterway (this waterway had been repaired by several others at various times) and established seven thousand chuans of new fields.

REFERENCE: Do Yu Tung Din.

When Liu Yi was the officer of Chin Chow State (Hupeh) *much of the land in the territory was in a worthless condition,* and the people had all scattered and left. There were 10,000 chuans of good fields around the Chao embankments which had been spoiled for a long time, so that there was always danger of drought in the summer and autumn. Liu Yi Shin sent officers to inspect and repair the embankments. He conducted the Pee River through the old ditches into the ponds and cut down the woods to open the Jen River so as to make connections with the King River (Shensi). Consequently the harvest was plentiful and good.

REFERENCE: Sung Book, chapter on Royal Families.

Yi Sin, the son of Prince Tsin (Dow Lin) says: "In the neighborhood of Kiang Wai (Yangtze and Wai River—Kiangsu, Anhwei, etc.) the soil is very unproductive and the population is very sparse. Recently there has been great hunger and hundreds of cities have been reduced to the point of starvation.

§ 2. *Emperor Wu-ti (first emperor), 420-422 A. D.*

REFERENCE: Sung Book.

The government conducted relief work for wandering doors in Chin Yung (Shensi).

§ 3. *Emperor Wen-ti (third emperor), 424-453 A. D.*

REFERENCE: Sung Book.

Reign Yuan Char.

The government taught the people about the cultivation and the raising of mulberry trees, and also conducted the work for the states and counties which had suffered flood or drought.

The government conducted relief work for the states and counties which had suffered from flood and drought and also loaned seeds and provisions to the people. It also urged people to work on cultivation and planting.

An edict says: "In recent years the crops have been injured frequently and the drought has often become disastrous. One reason is that *the crops planted and method of cultivation have not yet been adapted to the soil conditions.* From now on, the people in the counties of Southern Hsu (Kiangsu), Yen (Shantung), Yu (Honan), Yang Chow (Kiangsu), and Chehsi (Chehkiang) are all directed to plant a wheat crop so as to make up the deficiency. In all the states and counties, the people are ordered to utilize the soil benefit to the utmost, and they are urged and directed to devote their efforts to land cultivation, the raising of silkworms, mulberry trees, hemps, etc., so that they may resort to the most efficient means in every instance."

Fuel and rice were given by the government to the poor.

The government conducted relief work for the states which had suffered flood and disaster. All persons in need of fields for cultivation were given to according to their needs.

§ 4. *Emperor Hsiao Wu-ti (fourth emperor), 454-464 A. D.*

REFERENCE: Sung Book.

All the territory north of the Wai River was occupied by Barbarians. The population in the south was 900,000 doors and 4,680,000 mouths.

Edict: Ordering officers of different districts to encourage the people to utilize the benefits of the soil to the full extent. The names of those who are especially industrious on farms and know how to make good savings are to be mentioned to the emperor.

The government conducted relief work to relieve the famine and loaned the different gardens (for fishing in the ponds therein) to the poor.

Edict to give provisions and seeds to the counties and districts which had suffered from flood.

Because the people in Southern Hsu (Kiangsu) and Yen (Shantung) were suffering from flood, an edict was issued to suspend collection of back dues from the people.

The official granary was opened to conduct relief. Also an edict was issued to lend wheat seed to the people.

§ 5. *Emperor Ming-ti (fifth emperor), 465-472 A. D.*

REFERENCE: Sung Book.

Reign Tai Sze, first year:

On account of a poor harvest, an edict was issued to reduce the salaries of high officials, and also to cut down the expenditures for non-essentials.

§ 6. *Emperor Hou Fei-ti (sixth emperor), 473-476 A. D.*

REFERENCE: Sung Book.

Reign Tai Yu.

An edict was issued to relieve the poor.

Reign Yuan Hwai.

There was a great flood in Sau Yang (Anhwei) and drought

in the capital (Honan ?), so the government conducted relief work.

Edict: Restoring the old law which forced people to remain in their localities.

§ 7. *Emperor Shen-ti (seventh and last emperor), 477-478 A. D.*

REFERENCE: Sung Book.

There was a great flood in Yung Chow (Shensi) so the government conducted relief work, and also exempted the people from taxes and services.

III. *Southern Chi Dynasty (Third of Six Dynasties), 479-501 A. D.*

§ 1. *Emperor Kau-ti (first emperor), 479-482 A. D.*

REFERENCE: Southern Chi Book.

Reign Chain Yuan.

There was a flood in the counties of Ten Yang, Two Wai, and Yi Shih (Kiangsu). So the districts which had suffered most severely from the flood were exempted from taxes and pardoned.

Relief work was conducted for the capital (Honan ?).

§ 2. *Emperor Wu-ti (second emperor), 483-493 A. D.*

REFERENCE: Southern Chi Book.

Reign Yuen Ming.

There was rain and flood in the summer and the farmers in the counties of Wu Shin and Yi Shun (Kiangsu) were greatly impoverished. So they were exempted from taxes and service.

On account of military expeditions, and flood and drought in Yung Chow (Shensi), an edict was issued to suspend collection of back dues from the people.

On account of bad years, the states of Sze and Yung (Shensi), and Yunan County (Honan), were exempted from back dues. Owing to too much rain in the capital, envoys were appointed to conduct relief work.

§ 3. *Emperor Ming-ti (third emperor), 494-498 A. D.*

REFERENCE: Southern Chi Book.

Edict: to exempt people in Wu and Tsin Ling (two counties in Kiangsu) from taxes.

Edict: Officers of the districts to teach people about farming and the raising of mulberry trees.

§ 4. *Marquis Tung Hwen Hou (fourth and last emperor), 499-500 A. D.*

REFERENCE: Southern Chi Book.

There was rain and flood in the capital, so the government conducted relief work.

IV. *Liang Dynasty (Fourth of Six Dynasties), 502-556 A. D.*

§ 1. *In general.*

REFERENCE: Liang Book, chapter on Shar Hao Jen.

When Shar Hao Jen was the officer of Yu Chow State (Honan) he built embankments for the reservoirs at Chang Liu, so as to irrigate more than 1000 chuans of fields, and the harvest every year was more than one million loads (one mow equal to ten loads).

REFERENCE: Liang Book, chapter on Good Officers (local or district officers).

The time was that following the period of decay and exhaustion and the people suffered from misfortunes and famine. Everywhere the price of grain was very high, and one load of rice was as high as several thousand (cash ?).

§ 2. *Emperor Wu-ti (first emperor), 502-549 A. D.*

REFERENCE: Liang Book, chapter on the Emperor, etc.

Many public fields were occupied, taken away by the influential and rich families, who then rented them to the poor at a very high price. From now on, no public fields were to be

rented to influential families, but those fields which had already been rented to them were to be allowed to them, and not taken away. And rich families were not to be prohibited from renting these fields in case they gave seeds and provisions to the people and worked together with them.

Edict: The fertile fields must be widely opened, and both the public and private land ought to be utilized to the full extent. In the case of those wishing to become farmers but finding themselves inadequately supplied with seeds and provisions, the same are to be helped by the government.

Edict: Whoever has wandered to another place is to be allowed to return to his native state, and to be excused from taxes for three years. In the case of those who do not wish to go back, the same are to be forced to make permanent residence in the places where they are. Taxes to be the same as they used to pay before wandering.

§ 3. *Emperor Yuan-ti, 552-554 A. D.*

Prayer for use with sacrifice in Plowing in the East Fields.

The millets are abundant, and the people are all merry. Good rains are plenty, and they reach our private (people's) fields immediately (after they have reached the public fields).

Plea for cultivation (same author as above).

The cold valley will be naturally warm if it is filled with millet crop, so why should we drop this principal crop.

Edict giving tax exemption to those families who show special industry in their work on farms, in order to encourage them.

V. *Chen Dynasty (Fifth of Six Dynasties). 557-588 A. D.*

§ 1. *Emperor Wu-ti (first emperor), 557-559 A. D.*

REFERENCE: Chen Book.

Edict to relieve the hungry.

§ 2. *Emperor Wen-ti (second emperor), 560-566 A. D.*

REFERENCE: Chen Book.

The people were urged and taught to work on agriculture and mulberry, and those that were wandering in search of food were ordered to be naturalized at the places where they were.

An edict says: "Due to military confusions for more than ten years most of the doors are lost from the records and out of 10,000 doors, less than one is left. The population left in Chung Yuan (central part of China, Honan, etc.) is hardly any. . . . The price of millet grains is even higher than pearls and jade stone. The wandering are many, and the farmers have lost their occupation. . . . The value of the wheat crop is especially important. So those who are especially poor will be given seeds according to their needs."

§ 3. *Emperor Shen-ti or Siuen-ti (fourth emperor). 569-582 A.D.*

REFERENCE: Chen Book.

. . . Many people, carrying the young and supporting the old, wander around with grass shoes. Having already lost their own occupation, they have become people of the leisure class. And with the coming of famine and plague, they cannot but wander and leave their native places. . . . The government gave grain to relieve these wandering people, and also provided for seeds and food so as to encourage the people to cultivate the lands nearest at hand.

Edict giving either partial or entire exemption from taxes whenever flood or drought is met with in the cultivation of fields.

Any persons able to open and cultivate waste land are to be exempted from taxes as before, with no limit to the amount they may cultivate.

The wandering were exempted from services and taxes. An edict was issued to distribute land to the people in the districts where the population had greatly declined.

§ 4. *Emperor Hou Chu (last emperor), 583-588 A. D.*

Edict: " . . . The *fertile land is more precious than gold while the poor land has often changed owners three times.* Inasmuch as the *fertility of the soil is not the same,* so the *amount of return from this land differs accordingly.* . . . People have given up their plows, grouping themselves to become leisure hands. This has become a permanent injury to society and is indeed to be regretted.

" Those able to open the uncultivated fields anew and to plant on land that is full of weeds will be entirely exempted from taxes—without limit on the amount of their fields. All the private and public fields which have been left waste for a long while are to be given to the people for cultivation. Officers (districts) who have taught people to cultivate, and good people who have celebrated good harvests are to be rewarded according to their merit."

VI. *Sui Dynasty*[1] *(last of Six Dynasties), 581-617 A. D.*

§ 1. *In general.*

REFERENCE: Sui Book.

Edict: Officers are ordered not to tread and walk on the rice crops. In case there is necessity of opening new roads on any rice fields, officers ought to figure out the income or return on the land according to the maximum income of the land and pay the due amount to the land owner from the grain in the nearest granary.

§ 2. *Emperor Wen-ti (first emperor), 581-604 A. D.*

REFERENCE: Sui Book.

The *population* in the world had *been increasing* every year, *so in the capital and its suburbs and Shan Ho* (Three Rivers —Honan, Shansi) the *land* was *scarce* and the *people too many.* Consequently the provisions and clothing were insufficient.

[1] After Northern Wai was divided into Northern Chi and Northern Chou, the latter conquered the former. Sui succeeded Northern Chou and finally unified the whole empire (north and south).

All those (officers) who participated in the discussion of the situation wanted to move the people to the wide countries.

Therefore the *emperor sent officers to equalize the land* in the world. At this time, the adults in the narrow countries received only twenty mows and the old and young even less than this amount.

REFERENCES: Sui Book; also Tsur Fu Yuan Qwai.

Doors: 3,600,000. At this time doors and population increased, so states and districts were further subdivided.

REFERENCE: Sui Book.

Reign Kai Huang.

The charity granary (Yi Chang) was established at this time. The government conducted relief work for flood in Honan. Soon afterwards there was great drought every year in Kwan Chung (Shensi) and at the same time there was a great amount of water in Tsing, Yen, Pei Hsu (Honan), Chao (Shantung), Pau, Chen, Ren, Chow, Yu, Cheng, Loh, Yi (Honan), Yin (Honan and Anhwei), and Pi (Kiangsui). So the people suffered from famine, and the government opened the public granary for their relief.

Reign Ren Sou.

The government conducted relief work for flood sufferers in different states at Honan and Hopeh (Honan, Shansi, and Chili).

REFERENCE: Sui Book, chapter on Food and Commodities.

Reign Kai Huang.

In distributing the opened land and the perpetual property Sui conformed [1] to the law of Northern Chi. The people were

[1] Every man received 80 mows (Sui measure) of cleared land, and 20 mows of mulberry land as perpetual properties; every woman received 40 mows of cleared land. Notice the measures of Sui were different from Northern Chi (smaller) although the regulations were similar. *Cf.* Part III, Chapter on Weights and Measures.

also required to plant mulberries, elms and dates. On the average, every three citizens received one mow for their home and garden, and every five slaves received the same amount.

Besides, from the princes to the military commanders all were given land for their perpetual property, its amount varying from 10,000 mows down to 40 mows.

To the officials of the capital the land was given as follows: First rank, 500 mows; second, 450; third, 400; fourth, 350; fifth, 300; sixth, 250; seventh, 200; eighth, 150; ninth, 100. (The last rank is supposed to be the same as for common people).

To the officials outside of the capital, the official land was also given at about the same rate.

§ 3. *End of Sui and Beginning of Tang.*

REFERENCE: Tang Book, chapter on Lee Si Tzu.

Lee Si-Yu, brother of Si-Tzu, was a very honest and temperate individual, and very economical in his house-keeping. He was also very kind to his relatives. One day he addressed his sons and grandsons: "I have no desire for money and have thus become poor. However there are 1000 mows of land near the capital (Shensi ?) which was given me by the government. So if you can cultivate this land you will get sufficient to eat." [1]

§ 4. *Emperor Yangti*[2] *(second and last emperor), 605-616 A. D.*

[1] One thousand mows (Sui scale) of land seems to have been considered very little at that time.

[2] Yangti is the emperor who built the Grand Canal. The beginning of his reign is considered by Chinese historians to be one of the best in the history of China; but Emperor Yangti was very luxury-loving, etc., and imposed such heavy taxes that these are considered the cause for the later difficulties.

The idea of the Grand Canal was to connect the rice crops of the south with the north (by connecting the Huang and Yangtse rivers).

Chinese historians, however, are so prejudiced against Yangti for his luxury-loving tastes that they refuse to give him credit for any good

REFERENCE: Sui Book, chapter on the emperor.

An edict was issued ordering a redistribution of the land of the world (equalization).

An edict was issued ordering all the people to live in the cities or towns and to give the fields to those at places near by. The idea was to make them help one another in strength and service, that robbers might not molest, and that there might be no wild fields available where escaping people might gather themselves.

Population under Yangti.[1]

REFERENCE: Ku Kin Tsi Pin Liu.

Population under Yangti was still more increased (than under Wenti). The treasury was full; but at the end of this reign, people began to leave their occupations and all wanted to stay together in the cities, and so were unable to get provisions for themselves. At first people took the bark of trees for food. Then gradually they used leaves. When both of these became exhausted, they cooked soil and bran into flour. Finally they ate human flesh.

motive and attribute its construction to his desire for enjoyment. Accordingly no mention is made of the building of the Canal in the Chinese Encyclopedia.

[1] At the end of Yangti's reign, however, two-thirds of the population again perished.

	Doors	*Mouths*	*Cultivated Fields*
According to Sui Book ...	8,907,546	46,019,956	.....
According to Do Yu Tung Din	8,907,536	.....	58,854,040 chuans

CHAPTER VII

Northern Barbarian Dynasties [1] (coexisting with the six [southern] dynasties), 317-588 *A. D.*

I. *Northern Wai,*[2] *386-534 A. D.*

§ 1. *Emperor Hsiao* [3] *Wu-ti.*

Reference: Northern Wai Book.

On account of military confusion people left their farming occupations. . . . The government moved 360,000 officials and people and more than 100,000 skillful laborers, also Koreans from Shantung, to reenforce the capital. To these people, land was distributed according to their mouths, and also farm oxen were given to each. . . . Outside of the capital, eight department officers were provided to direct and teach the people about farming. The quality of the work done by these officers was determined by the harvests of the farmers.

[1] These three barbarian dynasties in the north were co-existent with the middle four of the Six Dynasties, and belonged to the Barbarians who conquered the territory from Tsin. These dynasties are especially important in that they restored the Tsing Tien System and established again public ownership of land. This they were able to do because of the abundance of land, many natives having left for the South and also many having been killed by the war of conquest.

[2] Northern Wai occupied North China for a long time, lasting for the major part of the Six Dynasties. It was the first dynasty which really carried out the restoration of distribution of public land since the time of the Tsing Tien, as the effort of the Tsin Dynasty was but short-lived.

[3] All Wai emperors have the prefix Hsiao, which means filial piety and reverence, denoting the respect of these northerners for the Chinese virtues.

§ 2. *Emperor Hsiao Wen-ti,*[1] *471-499 A. D.*

REFERENCES: Shansi Tung Tzu (General Record of Shansi); also Northern Wai Book, chapter on Lee Shau Peh.

Lee An Sze reported to the emperor (Hsiao Wen-ti): "the years are hungry and the people are wandering; and many of the farming properties (land, oxen, implements, etc.) are being taken (by force) by the powerful persons. The amount of land owned by people should be limited, so as to leave no fields uncultivated and no people wandering around. The powerful and influential families should not monopolize all the fertile and rich fields, and the simple and poor should also share some of the chuans and mows. . . . Although it is difficult to restore the system of mulberry and tsings (Tsing Tien), yet the fields ought to be remeasured carefully, so that the distribution of holdings may be according to some fixed standard, and the property of the people be equal to their strength. Then[2] the small man will be able to make his living, and the influential will not be able to accumulate too much surplus." . . . This is the beginning of the system of Chuan Tien (equalization of land holding which was adopted later).

REFERENCE: Do Yu Tung Din.

The officials of the counties and chows (states) were given the public fields.

REFERENCES: Northern Wai Book, chapter on Hsiao Wen-ti; also Do Yu Tung Din.

Reign Tai Ho, first year (477 A. D.):

An edict was issued that the system of public distribution of

[1] This was the emperor who restored the Tsing Tien or public distribution of land.

[2] Shows large landholding before the restoration of the Tsing Tien System.

land be as follows:[1] "One regular adult to receive 40 mows (Wei measure), and one secondary adult (younger age limit) 20 mows. The idea is to utilize the full strength of the people and also the full benefit of the soil."

Same reign, ninth year:

REFERENCES: Northern Wai Book, chapter on Food and Commodities; also Do Yu Tung Din.

In this year, an edict was issued by Hsiao Wen-ti as follows: ". . . Recently, the rich and strong are eating up even the mountains and marshes (same condition as Sung of House of Liu in south China) while the weak and poor have no hope of getting even a place to live. As a result, the benefit of the soil has not been fully utilized, and the people are living in a 'hand to mouth' condition (no savings). Some of the people have risked their lives, because they were quarreling over some hedges of the fields; while others have given up their occupations (desertion of land) because they were suffering from hunger and cold (land return not sufficient for subsistence). Under such conditions, how can we expect the empire to be settled and peaceful, and the people to be plentifully provided for and contented? Therefore be it ordered that the land property of the people in the whole empire be distributed on an equal basis."

The system established was as follows:

a. *The Open Land.*[2] From the age of 15 yrs. up, each man received 40 mows of the open land in which nothing had been planted and each woman received 20 mows (also Wei measure); the slave[3] was treated like the free citizen. For each

[1] This reference does not give a full account of the system, as it was only in process of development at that time. In later years the system was further extended and perfected in great detail. *Cf.* next reference.

[2] The open land was called the regular land, that on which the law of distribution of land was based. It was probably free land not under private ownership, and belonged practically to the government.

[3] The slaves received land shares the same as free people; but their shares actually went to the slave-owners. Hence the slave shares only benefitted the owners.

ox [1] or cow, there was given a share of thirty mows, the limitation in number being 4 oxen. The poor land, which was assigned for the oxen, was generally given in double amount; if the land could be cultivated only every fourth year, it was given in quadruple amount. Those who had reached the taxable age (15 yrs.) received land, and those who were old enough to be exempted from taxation, returned it; if they died, it reverted to the state.

b. *The Flax Land.* Land on which flax was planted. When a man reached the taxable age (15 yrs.), he received 10 mows of flax land (in addition to 40 mows of open land); a woman received 5 mows; the slaves were treated like the free citizens. This land too was subject to the law of acceptance and return.

c. *The Mulberry Land.* When a man first received it, he had a share of 20 mows. It was not subject to the law of acceptance and return, and it was classified as the double land (auxiliary land, i. e., auxiliary to the open land). If the amount of mulberry land was more than a man's share, it should not be counted as that of open land, but if it was less than his share, he should take the open land to fill up the amount of double land. (Private land should not be substituted for public land, but public land should be substituted for private land.) The recipient was required to plant 50 mulberry trees, 5 date trees, and 3 elms. The slave was treated like the free citizen. Within the limit of 3 years, the plantation should be finished; *otherwise the unfinished part should be taken away.* All the mulberry land should be hereditary property; when the owner dies, his land need not be returned. The distribution of mulberry land was in accordance *with the then existing*

[1] This also gave the ox-owners special amounts. It may here be noted that this restoration of public distribution of land by Northern Wai was one favored by the conditions. Since the destruction of Tsing Tien the land had been in private ownership, and changes of ownership from rich to poor by the government would have caused great confusion and discontent. Northern Wai had thrown open land, however, which probably was not under private ownership but belonged to the government. And it was this open land on which nothing had been planted that was subject to the law of acceptance and return.

population only; he who held more of it than his share had no acceptance or return, but he who held less of it than his share should accept a full amount, and plant something according to the law. If he had more, he was allowed to sell the surplus; if he had less, he was allowed to buy it; but no one should sell his share or buy more than the amount of his share.

REFERENCE: Northern Wai Book, chapter on the Emperor.

All the states and chows where there were wet fields, were ordered by edict to open up the ways for irrigation; and laborers were sent to different places to direct the work.

Edict: To send special emissaries to different counties and states to announce the regulations according to the form of Chu and Tsing (Tsing Tien System). Those which had hidden mouths and adults were permitted to report accurately again. Should any have helped the influential, and oppressed the orphans and the weak, the same were to be subject to regular punishment.

REFERENCE: Northern Wai Book.

Reign Yen Shin.

Edict: To permit all merchants, laborers and other skilled men to become farmers. Also all districts were ordered to plant more vegetables and fruits.

Grain was taken from the granary to give to the poor and the relief works were conducted in the different states which had suffered flood and drought. In the state of Shun (Chili) the people who died from hunger amounted to 2,845 persons.

Reign Tai Ho.

Relief work was conducted to relieve the famine and the people were urged and taught to farm.

Edict: District officers were ordered to lead the people in farming, not to be behindhand (to catch the proper seasons). Those families having more oxen than necessary were to lend them to those not having any. Upon refusal to comply, no member of such families was to be eligible to hold government

office during his lifetime. District officers failing to find out the conditions were to be dismissed from office.

Edict: All guilty persons to be sentenced immediately and sent to cultivate the land.

Edict: Farmers not to be held too long in prison during farming months.

There was lack of seasonal rain and the spring sprouts were dried up. So the emperor prayed for rain; and the granary was opened to conduct relief work.

The people who had suffered from flood were exempted from taxes.

Rice soup was given to the hungry, also relief work was conducted in thirteen states and towns to relieve the hungry. The rice soup in Tin Chow (Chili) saved 947,000 mouths and that in Tsi Chow (Shansi and Chili) saved 751,700 mouths.

On account of drought and famine, the people were permitted to migrate to any good places (of good harvest) and the government gave grain and provisions to these people. An edict was also issued ordering the opening of the granary to relieve these people at the places whither they went.

REFERENCE: Northern Wai Book, chapter on Han Chi Ling.

Same reign (Tai Ho).

He reported to the emperor the actual conditions at that time, saying, ". . . In the capital, the people who are not working on farms are many. The mouths belonging to the leisure class amount to two-thirds of the total, frequently as many as 10,000. *This is the reason why Shantung has often suffered flood, and the capital (Chili) has often suffered drought. Consequently* the price of grain becomes high and the people have to suffer hunger. *It is simply because the farmers have not been encouraged, and they have no savings in normal times.*"

REFERENCE: Northern Wai Book.

Same reign.

An edict was issued to establish granaries in different states

and counties to buy and sell grain at times so as to maintain a fairly constant price for the grain.

There was a great famine in fifteen states and towns, so an edict was issued to open the granaries at these places to conduct relief work.

Edict: Officers to be sent to encourage farmers.

Relief work was conducted to relieve the people from hunger.

§ 3. *Emperor Shen-ti (Shen Wuti).*

REFERENCE: Northern Wai Book.

Edict: People in the north and south to plant rice and wheat —to plant millet in the autumn and to sow rice and millet in the spring adapting each to soil conditions. Both wet and dry methods to be used at the same time so that neither the benefit from fields nor the efforts of the people will be left unutilized.

Reign Tsing Ming.

Famine relief work was conducted by the government.

Because the population was decreasing and the people were tired, an edict was issued to exempt the people from all the extra taxes or service which might be harmful to them (the regular taxation was not excluded in this exemption).

Because of drought, different districts were ordered to bury the dead (there was a great famine in Ho Chow [Honan ?] and more than 2000 died).

Reign Chen Sze, Yuen Pin and Yen Chan.

There was famine and poverty in Shantung, Shansi, Chili and Kansauh due to flood and drought, so the government opened granaries for relief, and lightened the system of punishments for crime.

§ 4. *Emperor Ming Yuan Ti.*

REPERENCE: Northern Wai Book.

Reign Yuen Shin.

On account of flood and drought, the emperor reduced the

number of servants in the palace, and also the skillful laborers; and gave them to the widowers so as to help them.

Reign Sun Shen.

There was a famine in the capital (Honan ?) so the people there went to Shantung for food. The government also gave out clothes, silks, and grain from the granary to relieve the people.

Reign Tai Shang.

There was great rain and flood in Fan Yang, Au Men (Chili) and Ho Lay (Honan), so the people in these places were exempted from taxes.

The granary was opened to conduct relief work.

§ 5. *Emperor Tai Wuti.*

REFERENCE: Northern Wai Book.

The poor were exempted from taxes.

§ 6. *Emperor Tai Pin Jen Chuan.*

REFERENCE: Northern Wai Book.

First year: There was famine in fifteen states and divisions, so a granary was opened to conduct relief work.

Second year: There was famine in Shantung, so a granary was opened to conduct relief work.

§ 7. *Emperor Ming-ti.*

REFERENCE: Northern Wai Book.

New people were sent to Ta Ling Chuan (Shansi ?); implements given and land distributed according to their mouths.

Edict: Because of drought and disasters, all mason work (earth and wood) were to be stopped temporarily to encourage farmers and to let them work exclusively on farms.

Government Relief.

Reign Sin Pin.

First year: There was famine in Yin Chow (Chili) so the

granary was opened to conduct relief work. Owing to the drought disasters, the prisoners were pardoned, and the farmers were urged to pay more attention to their agricultural business.

Second year: There was great famine in the states of Yu, Tsi, Chang, Yin and Kwon. So the government conducted relief work.

Reign Sun Kwai.

First year: The government conducted relief work in Yu Chow (Chili) to relieve the hunger of the people. (Those who had died of starvation were 3799).

Reign Chen Kwon.

First year: Because of serious drought, an edict was issued to pardon prisoners and give exemption from taxes and services.

Because of drought disasters and injury to the rice crop, the local officers were ordered to carry on charity work only.

Fourth year: The government conducted intensive relief work at the places which had suffered from military confusion.

§ 8. *Emperor Hsiao Tsin-ti.*

REFERENCE: Northern Wai Book, chapter on Food and Commodities.

First year: The government gave out grain to the people so as to relieve the moving people (altogether 1,300,000 loads of grain or millet were used in the relief work).

Third year: An edict was issued to investigate the number of wandering and hungry people in Hopeh (Honan, north of the Yellow River).

Fourth year: The granary was opened to relieve the hungry. There was frost and drought in the states of Bin, Sze, Feng, Chien, Tsin, Tai (Shansi), Sheng Tung, Honan, Yu Nan (Shensi), Fen (Shansi). Consequently people were hungry and wandered away; and great numbers died of starvation.

REFERENCE: Northern Wai Book.

Population under Hsiao Tsin-ti.

Doors, 371,675. Mouths, 1,459,835.

Those who had doors but failed to register were found to be 600,000 doors. Therefore 371,675 plus 600,000 makes 971,-675 doors.

(At this time strangers were forced to go back to their own homes; for since many people had left their old places, taxes and services could not be collected.)

§ 9. *Emperor Wen Chen-ti.*

REFERENCE: Northern Wai Book.

There were worms and famine in different states and towns, so the granary was opened to conduct relief work.

There was frost in the states of Tin and Shun (Chili), and the crop was injured. So the people were exempted from land taxes.

§ 10. *Emperor Hsien Wen-ti.*

REFERENCE: Northern Wai Book.

Reign Tien An.

There was drought in eleven states and towns and the people suffered from famine. So the granary was opened to conduct relief work.

Reign Huang Shin.

There was flood and drought in twenty-seven states and towns. So the granary was opened to conduct relief work.

There was famine in eleven states and towns; so the granary was opened to conduct relief work.

§ 11. *Emperor Kun-ti.*

REFERENCE: Northern Wai Book.

Ordered: Every adult in each family whether with or without oxen to cultivate twenty-two mows, with the addition of seven mows as a reward if they are well worked. Every young or old person, without oxen, will cultivate seven mows with the addition of two mows. Using a poor family with less than five mows as a standard, every family is classified (rated ?) and put

on the records with its number of mouths, and the amount of land cultivated.

Yu Wen Tai (high official) established the system of six departments again (similar to Chow Li). The duty of the officer Sze Chang (officer in charge of granary) was to prepare for the nine grains (to save the nine kinds of grain) so as to prepare for the emergency of famine and disastrous years.

II. *Northern Chou*,[1] *557-581 A. D.*

§ 1. *Emperor Wenti (first emperor), 534-556 A. D.*

REFERENCE: Sui Book, chapter on Food and Commodities.

In the Northern Chou Dynasty, Emperor Wenti established the Bureau of Equality for dealing with land questions. To a family of more than ten persons, five mows (Northern Chou measure) were given for their home; above seven persons, four mows; above five persons, three mows.

To a married man 140 mows (northern Chou measure) were distributed; to a single man, 100 mows.

§ 2. *Emperor Hsiao Min-ti.*

REFERENCE: Northern Chou Book.

On account of famine in Cheh Chow (Chehkiang) the people were exempted from taxes.

§ 3. *Emperor Ming-ti.*

REFERENCE: Northern Chou Book.

Because too much rain had injured the crops, an edict was issued asking for frank statements (from people or officers).

§ 4. *Emperor Wu-ti.*

REFERENCE: Northern Chou Book.

[1] Northern Wai was divided into Western and Eastern Wai; and Northern Chou succeeded Western Wai, while Northern Chi succeeded Eastern Wai. Western Wai occupied the western half of north China, and Eastern Wai, the eastern half.

Reign Bau An.

First year: As a great drought had spoiled the crops, an edict was issued ordering the court officers to pay more attention to their judicial work (to release the innocent).

Reign Chien Der.

Because of poor years, an edict was issued ordering the officers to collect regular taxes and service only. Due to a great drought, an edict was also issued asking for frank statements (from all the people). However the high officials took the blame (for the bad conditions) upon themselves.

Third year: Because of famine years, those having millet and wheat were ordered to retain only mouth shares, and to sell out the excess. There was also an edict to move the hungry to other places for food.

Fourth year: There was famine in the two states of Chi and Ling (Shensi ?). The granary was opened to conduct relief.

§ 5. *Emperor Shenti.*

REFERENCE: Do Yu Tung Din.

Doors, 3,590,000. Mouths, 9,000,000.

III. *Northern Chi Dynasty, 550-577 A. D.*

§ 1. *In general.*

REFERENCE: Do Yu Tung Din, chapter on Kwon Tung Fung Sou Chuan (Customs of Kwon Tung—[Honan]).

During the Northern Chi Dynasty, the strong invaded the rights of the weak, and used their influence to commit robbery. As a result, the rich owned land from field to field while the poor had no place even to stand a chui (point of an awl). In the ancient time, the Han government called for volunteers to move to the public fields, fearing that some fields had been left uncultivated. So people were allowed to go to any fertile and beautiful soil they chose. But the Chi government had no

system of its own. Although they had the system of the previous period (Northern Wai) to follow, yet in some cases quarrels over land ownership were not settled for more than thirty years. This was because the Chi government had no system for the distribution of land (Shau Tien Wu Far—no system of giving and receiving).

REFERENCE: Northern Chi Book.

When King Tsu Hsien was the officer of Yu Chow State (Chili) he conducted the Kau Liang River to meet the water at Yi King in the north, and the Liu in the east, so as to irrigate the fields; and both the public and private individuals received the benefit.

§ 2. *Emperor Wen Shen-ti.*

An edict was issued to exempt from taxes those having a poor harvest.

REFERENCE: Northern Chi Book.

Edict: Ordering district officers to encourage and teach farming and mulberry raising.

REFERENCE: Sui Book.

Decision was made to move or transport people (owning no land) from Din Yin (Chili) to Yu Chow and Fan Yang (north Chili). The people were greatly disturbed by the movement. Due to poor harvests for many years, the price of rice became very high.

§ 3. *Emperor Fei-ti.*

REFERENCE: Encyclopedia, Division on Government Relief, section 27, division 6, chapters 68-110, volumes 1415-1422.

The government conducted relief work in the states of Honan (Honan), Tin, Tsi, Chow, Yin, Chang Nan (Chili and Shansi), Chou, Kwon, Tsing (Shantung), which had suffered injury in crops.

§ 4. *Emperor Wu Chen-ti.*

REFERENCE: Encyclopedia, Division on Government Relief.

Second year: There were worms and drought in the five states of Bin, Feng, King, Tung, Yu Nan and Feng, which injured the crops. So envoys were sent to conduct relief work.

Third year: There was a great flood in Shantung, and numberless people died from starvation. So an edict was issued exempting people of flood states from taxation (about fifty per cent of the people had died).

Fourth year: On account of poor harvest, the people were prohibited from selling wines; and the salaries of all officials were reduced. An edict was also issued giving grain to the poor in the different states which had suffered from flood.

REFERENCE: Sui Book, chapter on Food and Commodities.

Reign Ho-Ching, third year (564 A. D.):

In 564 A. D., Wu Chen-ti made a law providing that every man receive land and pay taxes at 18 years of age; be enrolled as a soldier at 20; be freed from any forced labor at 60; and at 66 return the land to the government and be exempted from taxes.

Each man to receive 80 mows (Northern Chi measure) of open land; each woman, 40 mows; the slaves treated as free citizens.

The limitation of slaves was: 300 slaves for the princes of near relation; 200 for the successive princes; 150 for the princes of next rank down, and for the princes outside of the imperial family; 100 for the officials of the third rank up, and the imperial clansmen; 80 for the officials from the seventh rank up; and 60 for the officials from the eighth rank down, and the common people. No land was given to the slaves who stood beyond this limit. For each ox, 60 mows were given; and the limit was four oxen.

Besides, every man received 20 mows of mulberry land as perpetual property, which was not subject to the law of acceptance and return. When the land was not suited to mulberry

raising, flax land was given, to which the law of mulberry land was applied.

REFERENCE: Northern Chi Book, chapter on Yuan Wen-Yao.

When Yuan Wen-Yao moved from the city of Loh (Honan) to the city of Nieh (also Honan) he had a land property of only 1000 mows. He was poor, so he depended on this amount of land to get his clothes and provisions.[1]

§ 5. *Emperor Hou Chu*[2] (*last emperor*), *565 A. D.*

REFERENCE: Sui Book.

Doors, 3,030,000. Mouths, 20,000,000.

REFERENCE: Encyclopedia, Government Relief Division, section 27, division 6, chapters, 68-110.

All the states in Hopeh (Honan, Shansi, and Chili) which had suffered flood were exempted from taxes and service.

An edict was issued to relieve the people who had suffered from flood and were hungry; also to inspect and comfort the wandering and escaping people and doors.

[1] Shows that a person with 1000 mows (1000 mows about 8000 mows of Chow Dynasty) of land was still a poor person at this time. Does this indicate that soil depletion was very serious at this time? Honan was the center of ancient China; but its soil to-day is considered to be very poor, much poorer than that of southern China. In fact, the soil condition of the whole of North China, the best part of ancient China, has now become much inferior to that of South China.

[2] Hou Chu is the posthumous title that is given to every last emperor. It is given by the historians.

CHAPTER VIII

Tang Dynasty, 618-905 A. D.

§ 1. *In general.*

Reference: Ku Kin Tsi Pin Liu.

History of Tang Taxes.

At the beginning of Tang, the three-fold system (door, service and land) was used. After Tien Bau (Emperor Hsuan Chung) there came the northern invasion; and the yield of taxes was irregular, and the system corrupted.

Hence Der Chung required Di Wu Chi and Liu Yen to take charge of the *salt tax* and under their administration the income at the beginning amounted to about 400,000 strings, but at the end to more than six million strings.

Emperor Der Chung appointed two men, Chau Chan and Chang Bung, successively to take charge of the *tea tax*, which at the beginning was about 400 million strings, and afterwards was doubled.

When Yang Yen came to power, he took up all the different kinds of taxes which had been adopted since the war, such as taxes " for urgent provisions," " supplies to the army," " substitute tax," " additional tax " and combined them into the Bi-Annual Tax. Lo Tsi (rival leader to Yang Yen) thought the new method of taxation (Bi-Annual) exhausted the people.

As the days and months passed, the burden of taxation became very heavy on the people. But the government did not think the income enough and exacted still more, as " borrowing money " from the merchants, " tax on shelves," " additional tax on farms," etc. . . .

Tang had used the system of official soldiers as workers (to work on farms during peace and fight at the front during

war) similar to the Sui Dynasty; but since Hsuan Chung thought the system corrupt, he changed it to the Qwan Chi System instead—enlistmeent for military duty only, with no farm duties. Thus farmers and soldiers were entirely separated. And therefore even during peace time, there is always the trouble of providing for the army.

STATISTICS OF POPULATION

Time	*Doors*	*Reference*
Tai Chung, 627-649	less than 3 million	Do Yu Tung Din
Kau Chung, 650-683	3,800,000	Do Yu Tung Din
Chung Chung, 684	6,156,141	Old Tang Book
Hsuan Chung, 714-755:		
1st reign, 20th year....	7,861,236 (45,431,265 mouths)	Tsur Fu Yuan Kwei
1st reign, 28th year....	8,412,871 (48,143,609 mouths)	
2nd reign, 1st year	8,348,395 (45,311,272 mouths)	
2nd reign, 13th year ..	9,069,154	Wen Tsiang Tung Kao
2nd reign, 14th year ..	8,914,709 (52,919,309 mouths)	
Sou Chung, 756-762	1,933,124 (16,990,386 mouths) (decrease due to invasion of preceding emperor)	Tang Book
Tai Chung, 763-79	2,933,125 (everyone at this time exempt from transportation service or contribution)	Tsur Fu Yuan Kwei
Der Chung, 780-805	natives 1,800,000 guests 1,300,000 (migrated from other places)	Do Yu Tung Din
	3,805,076 bi-annual tax-doors	Wen Tsiang Tung Kao
Hsien Chung, 805	2,140,554	Tang Book
	1,440,000 paying bi-annual tax	
Mun Chung, 821-824	3,350,000	
	soldier—990,000	
Tsin Chung, 825-26	3,970,000	Wen Tsiang Tung Kao
Wen Chung, 827-40:		
Ta Hor Reign	4,357,573	Tsur Fu Yuan Kwei
Ki Chun Reign	4,996,753	Wen Tsiang Tung Kao
Wu Chung, 841-46:		
1st year	2,114,960	Tang Book
5th year	4,955,151 [1]	

[1] Wu Chung had given a tribe from Western Asia sanctuary in his dominions.

§ 2. *Beginning of Tang*[1] (*System in general*).

REFERENCES: Tang Book, chapter on Food and Commodities; also Do Yu Tung Din.

In 624 A. D. a law provided that to every man above 18 years of age 100 mows (Tang measure) of land was to be given; to an aged or sick man, 40 mows; to a widow, 30 mows; if she were the head of a family, 20 more mows were given to her. All of them took 20[2] mows of the land received as perpetual property and the rest as their share per mouth. "Mouth share" means the share of each person of the land belonging to the government. In the perpetual property, a certain number of mulberry, elms, dates and other trees, which were adapted to the land, were to be planted.

Where there was sufficient land to be distributed to the people, it was called "thinly populated country" or "wide country"; and where the land was not sufficient, it was called "thickly populated (or narrow) country." In the thickly populated country, there was distributed only half the amount of land that was distributed in the thinly populated country. If the land was cultivated every other year (instead of every year) double portions were given.

In the thinly populated town, if its land was cultivated every fourth year, it was not given at the rate of double portions (because this seemed too much).

The artisans and merchants in the thinly populated country received half as much as the farmers; in the thickly populated country, they received nothing.

The people who moved to another part of the country, or who were so poor that they could not even pay for their funerals, were allowed to sell their perpetual property. Those people who moved from the thickly populated country to the thinly populated, were allowed to sell *even* their *mouth shares*.

[1] Tang succeeded Sui Dynasty, which was rather short-lived.

[2] Chen Huan Chang says it was 20 per cent instead of 20 mows. The writer is of the opinion that it was 20 mows according to the Chinese notes. However, this is a rather unimportant point.

But after they had sold their land, nothing was given to them again. When the land owner died, his land was taken by the government and given to those having no land.

Among all the recipients of public land, each adult man contributed annually two loads of rice which was called "Tsow" (land tax or land rent). According to the native products of the section each family annually contributed a certain amount of silk, cloth, flax, or a combination of them. Such a tax was called " Yung " (family tax). In addition, each man was supposed to do public service for a certain number of days in the year; from 20 to 50 days. Such a tax was called " Dew " (labor tax or poll tax). The whole system of taxation (which was coupled with the system of public distribution of land at the beginning of Tang) was known as the very famous " Three Taxes " System of the Tang Dynasty.

REFERENCE: Do Yu Tung Din.

In addition, land was also given to the officials according to their ranks:

A. *Officials of the capital.* 1st rank, 1200 mows (Tang measure); 2nd, 1000; 3rd, 900; 4th, 700; 5th, 600; 6th, 400; 7th, 350; 8th, 200.

B. *Officials outside the capital.* 2nd (highest outside capital), 1200 mows (Tang measure); 3rd, 1000; 4th, 800; 5th, 700; 6th, 500; . . . lowest, 80.

§ 3. *Emperor Kao Tso (first emperor), 618-626 A. D.*

REFERENCE: Old Tang Book, chapter on the Emperor.

Reign Woo Der.

First year: Because the price of grain was high, the government gave tax exemption and also rice to people who were going to Kwan Chung (Shensi).

Second year: On account of disasters and injuries, the government exempted people from taxes and service, also distributed wealth from the government treasury to the people.

On account of the high price of grain, the government prohibited the killing of live stock and the selling of wines.

REFERENCE: Tsur Fu Yuan Kwei or Qwai.

Fifth year: Edict: Officers are ordered to let people rest from services, etc., that they may work exclusively on farms; and all guilty persons, whose sentence was lighter than exile, were to be released for harvest work.

Sixth year: Edict: During the Sui Dynasty, there was great military confusion and all the territories were partitioned. People were all tired and exhausted and affected by the war. Consequently many fields were left waste and famines occurred.

Seventh year: There was drought in the different states of Kwan Chung (Shensi) and Ho Tung (Honan); so the edict was issued to relieve the people.

REFERENCE: Tang Book, chapter on Wen Ta Yar.

When Wen Chao was the official of Lau Chow (State). (Honan ?). He opened and restored the country waterways 100 li to irrigate 2000 chuans of fields, and the people received the benefit.

Afterwards when he was the Cheh Do Sze (governor) of Hoyang (Honan) he restored the old Chin waterways at Whai Chow (state) (Honan); also the Fong Kao embankments so as to irrigate the fields of 5000 chuans in the four districts Chi Yuan, Ho Lay, Wen and Woo Tzu.

REFERENCE: Wen Tsiang Tung Kao.

The county officer of Tung Chow (Shansi), Yuan Der Chen, opened waterways starting from Lun Sau (head of the dragon—Shansi) to conduct the Yellow River to irrigate more than 60 chuan of fields.

REFERENCE: Tang Book, chapter on Lee Si Tzu.

When his younger brother, Lee Si Yu, held the office of military governor of Yang Chow (state—Kiangsu) he conducted the water from the Lay Ponds and built up the Kou Chen Reservoirs so as to irrigate 800 chuans of fields, and

to utilize the benefit of the soils to the fullest extent. He once said to his sons and grandsons, "If you have distributed to you fields of ten chuans, you can cultivate them and they will be sufficient for provisions."

§ 4. *Emperor Tai Chung*[1] (*second emperor*), *627-649 A. D.*

REFERENCE: Do Yu Tung Din.

Population: doors less than three million.

REFERENCE: Old Tang Book.

The emperor praises Liu Ren Kwei, because of his decision that hunting was very injurious to farming.

REFERENCE: Nong Sang Tung Jur.

Edict: People who are now farmers are prohibited from becoming merchants; and those who are merchants, but who are working on farms, are to be exempted from "door" taxes.

REFERENCE: Ku Kin Tsi Pin Liu.

People were prohibited from hiding their doors or mouths, or occupying fields without limit.

REFERENCE: Encyclopedia.

The services and taxes were reduced, and the farmers' time was not disturbed. The price of millet was at the value of two cash for one do (one-tenth load).

REFERENCE: Tang Book, chapter on Food and Commodities.

There was an edict ordering all the officers to give back the fields to the returning who had wandered away poor (of which officers had robbed the people ?).

On account of drought and famine, the government exempted the people from taxes, reduced the emperor's meal provisions, and conducted relief work.

There was a famine in Kwan Chung (Shensi) and some persons even sold their children.

[1] This was considered one of the best periods or golden ages of Chinese history.

The government used the money from the imperial treasury to buy back the sons of the starving. At this time the charity granary was again established.

The people were urged to plant millet, wheat and rice according to which was best adapted to soil conditions.

All states and districts were ordered by edict to relieve the escaping doors, and envoys were sent out to pray for rain.

REFERENCE: Tsur Fu Yuan Kwei.

The charity granary was opened to relieve the different states which were suffering from flood or drought or worms; so the government lent provisions and seeds to the people. The states visited by flood and drought and worms included Woo (Kiangsu), Tso (Hupeh and Hunan), Pa and Sauh (Szechuen), Shantung and Kiangwai (Kiangsu, Anhwei, Honan), Yi Chow (Chili), and Tsin Chow (Shansi).

§ 5. *Emperor Kao Chung (third emperor), 650-683 A. D.*

REFERENCE: Do Yu Tung Din.

Population: 3,800,000 doors.

At this time when the Emperor visited the states of Shu and Yu (Honan), Do Tsun Lun, the officer of those states, said that the field land was very "wide," that is, there was a great amount of land, and the people were very "scarce," not enough to occupy the land.

REFERENCE: Ku Kin Tsi Pin Liu.

The emperor worked on the imperial farms himself.

REFERENCE: Tang Book, chapter on Food and Commodities.

Reign Yuan Hwai

People were prohibited from selling both kinds of fields; permanent occupation and mouth share. But afterwards the rich influential persons "ate up" the poor so that the latter lost their properties. Therefore an edict was issued at this time to the effect that *all* those *who had bought land must*

return the same to the original owner, the government paying for it.[1]

REFERENCE: Tang Book, chapter on Hao Tsi Shan Tze (a person).

Reign Dew Lu.

He proposed to increase the troops at Ho Yuan (Shansi or Honan) to protect the place, and at the same time these soldiers were to cultivate 5000 chuans of new fields. And for each year, more than one million loads of grain were harvested. (One million loads divided by five thousand chuans makes 200 loads per chuan or 2 loads per mow.) [2]

REFERENCE: Do Yu Tung Din.

Report of Chong Sen Chang, the officer at Yung Chow (Shensi).

"In previous periods the waterways of Chen [3] and Peh irrigated 40,000 chuans of fields. But now these waterways are being used by the rich merchants and brokers to make tsen kau (device for storing the water supply). Consequently the embankments and dams took away the water, and the current of the waterways naturally stopped. So the waterways now only irrigate about ten thousand chuans."

So he requested the emperor to build up these waterways so as to be useful to the people.

REFERENCE: Do Yu Tung Din.

Woo Chi, the Tai Wai (officer), says, "The water of the Peh waterways contains mud and earth, so when it is used for irrigation the fields will be increased in fertility and good qualities."

[1] Shows the decay of the system of public distribution of land, even in the beginning of Tang, for Kao Chung is very near the beginning of Tang.

[2] This was in Tang measure. One million loads Tang makes three million loads Chow. See Part III, Chapter on Weights and Measures.

[3] See selection immediately following about the Peh Waterways containing mud and earth for irrigation.

REFERENCE: Old Tang Book, chapter on the Emperor.

The government established the Normally Constant Granary, and relieved the states which were suffering flood and rain. They were loaned government aid. (Tsi-Chili, Chi, Mi, Yen-Shantung, Hwaw, Pei, Chen, Wu [Honan], etc.).

REFERENCE: Tsur Fu Yuan Kwei.

Because the people near the capital (Shensi) were suffering poor years and had insufficient provisions, an edict was issued reducing the emperor's meal provisions. (There was no harvest of millet and wheat, and some even had to use chaff as food.)

REFERENCE: Old Tang Book, chapter on the Emperor.

There was a great famine in more than forty states in the universe, especially so in Kwan Chung (Shensi). An edict was issued permitting people to migrate wheresoever they pleased for food. The government also transported the rice obtained from taxation (rice collected by taxation) to these famine places to relieve the people.

Tax exemption and relief were given to the people in the states suffering drought, flood, frost, worms, etc.

On account of drought and famine, people were permitted to get fuels from and do fishing in the imperial gardens.

There was famine in Tung Do; the government distributed poor (quality) rice to save the hungry.

On account of famine years and high price of grain, the government suspended official banquets and reduced the number of guardians. In the capital, people ate human flesh; while in Shantung there was a great flood.

§ 6. *Emperor Chung Chung (fourth emperor), 684 A. D.*

REFERENCE: Old Tang Book, chapter on Sau Whei.

Doors: 6,156,141.

REFERENCE: Tsur Fu Yuan Kwei.

All states were ordered to utilize the benefit of the soil to the fullest extent.

There was flood in Honan and Hopeh (Honan, Shansi, Chili), so the government conducted relief work.

REFERENCE: Old Tang Book, chapter on the Emperor.

The government conducted relief work to relieve the famine in Shantung and Hopeh. On account of famine and plague at this time, the number of those who died amounted to thousands.

REFERENCE: Tsur Fu Yuan Kwei.

The government opened the granary to relieve famine and hunger also to relieve flood and drought in Kwan Chung (Shensi).

§ 7. *Emperor Yuen Chung (fifth emperor), 685-689 A. D.*

REFERENCE: Tsur Fu Yuan Kwei.

Reign Tsin Yuan.

The government conducted relief work for the people in Honan and Wai-nan (Anhwei and Kiangsu) who were suffering from flood and drought.

§ 8. *Empress Dowager Wu*[1] *(Wu Hou, sixth ruler), 690-712 A. D.*

REFERENCE: Wen Tsiang Tung Kao.

Li Chow's Petition to the Empress Dowager:

"The *wandering people left their native places for a long time,* so *public income and savings are lacking.* The *land is left barren and uncultivated,* so we must *immediately establish relief work to help the farmers to build their farms.*

"In case there is any unoccupied property which was formerly taxable, or slackers and fugitives from military stations, all are to be excused and not investigated, and relieved from taxes. Those who ought to go home but are so poor that they cannot afford to do so, will be given provisions for the trip so that they can reach their native places."

[1] This Empress Dowager was a bad empress, perhaps the worst in Chinese history.

REFERENCE: Encyclopedia, Literature Series, Relief Department.

Ti Ren Chi's report to the Empress Dowager on Penn Tzur District:

"There are nine districts in Penn Tzur County, and all people cultivate wet fields (rice). . . . It is now already in the month of autumn, yet the people are reporting on deficiencies in supplies, saying that since the spring and summer there has been no good rain, and that although they have tried to save the crops, they have not been able to do so. At present the season for cultivation is passed, and they cannot now plant any other crop. Thus even the aged (who are supposed to have the best food) have to use grass and vegetables for their daily provisions, and they have no rice at all from morning till evening.

"It seems to me that the county of Penn Tzur is rather limited in its territory, and the mountains here are very high and steep, and the fields not very many. Fields being cultivated by the people are only about *ten to fifteen mows* per door.

"So according to these conditions, even assuming that the people receive their full harvest, after paying their taxes to the government they will have to go without food for half the year (each year). And now they have no harvest at all, so how can they find any means of keeping themselves alive?

"From spring to summer, many have already deserted their homes or died from starvation. When I came to look into the records, most of the taxes have been cancelled. In every village and country the doors are being extinguished in the same way. The bad conditions are so deeply rooted that the officers (local) dare not come to any decisions, so I report the conditions to your Majesty."

§ 9. *Emperor Hsuan Chung (seventh ruler, sixth emperor), 713-755 A. D.*[1] *(time of Barbarian Invasion).*

[1] Hsuan Chung had two reigns: Kai Yuan and Tien Bau. The first reign was just before the barbarian invasion; and the second was during the invasion. The first was a good reign, that is, the government

REFERENCE: Tang Book, chapter of Yu Wen Yuen.

At this time (beginning of Kai Yuan Reign), the government was trying to find the hiding doors and mouths. Many people had left their original places, and wandered about in the villages to get food, and were clever in avoiding the compulsory service and taxes. *The influential people "ate up" the weak and the district officers were not able to prevent* it.

When Yu Wen Yuen was appointed special officer to make a new survey of the fields and to encourage farming, twenty-nine officers to encourage the farmers were provided in the edict to correct the number of mows, and to induce doors and mouths to come out from hiding and be given different occupations. As a result *800,000 hidden doors were discovered, and also the corresponding amount of fields* (which were eaten up and hidden).

REFERENCE: Tsur Fu Yuan Kwei.

	Doors	*Mouths*
First reign: 20th year	7,861,236	45,431,265
" " 28th year	8,412,871	48,143,609
Second reign: 1st year	8,348,395	45,311,272

REFERENCE: Wen Tsiang Tung Kao.

13th year	9,069,154	.....
14th year	8,914,709	52,919,309
Doors free from tax [1]..	3,565,501	Mouths free from tax [1].. 44,700,988
Remainder	5,349,280	Remainder 8,208,321

administration was good, considered to be almost a golden age by Chinese historians; and the second was a bad reign, during which the northern barbarian, An Lo Shang, invaded the empire, and Emperor Hsuan Chung escaped from the capital. At this time the Tang Dynasty almost lost its throne, and the people, especially those in Shensi, Honan, Shansi, and Chili, suffered a great deal.

[1] Classes free from tax:—

1. Officers above ninth rank.
2. Males less than 20 years old.
3. Deformed and crippled persons.
4. Wives.
5. Hired actors.
6. Girl guests (staying with friends and relatives).
7. Male and female servants.

REFERENCE: Tang Book, chapter on Food and Commodities.

Income of government: more than two million strings in money; 19 million, 800 thousand loads of grain; 7.4 million rolls of silk; 1.8 million rolls of cotton; and 10.35 million pieces of cloth.

REFERENCE: Tsur Fu Yuan Kwei.

Kai Yuan, 23rd year:

An edict was issued as follows: " The perpetual property and mouth shares of the people in the empire are subject to strict government regulations, and no one is allowed to sell or mortgage them. But now some people have disobeyed the rules. As a result, the poor people have left their property, and the strong and rich are eating up the poor. Therefore be it ordered that all the officers are to make clear to the people that they are not allowed to do anything against the rules. If they should again commit this crime, they shall be severely punished."

REFERENCE: Do Yu Tung Din.

Kai Yuan, 25th year:

(Do Yu says:)

Although we have the system of public land distribution, it has, however, broken down since the end of the Kai Yuan Reign of Emperor Hsuan Chung (740 A. D.). The evil of eating up today (Hsuan Chung) is sometimes worse than that of the period of Chen-ti (32-7 B. C.) and Ei-ti of Former Han Dynasty. (The period 32-7 B. C. is the time when the limitation policy was proposed by Sze Tan).

Kai Yuan, 33rd year.

For every eighty mows of rice fields (wet) one ox was provided. And these fields which were being used to produce other crops such as big wheat, dry turnips, chow wheat, etc., were classified according to the rice crop equivalent to their produce.

REFERENCE: Tsur Fu Yuan Kwei.

Tien Bau, 11th year.

An edict was issued as follows:

"I (emperor) have heard that some of the princes, dukes, officials and influential and rich people have frequently established great sections of fields. They have been eating up the poor *at their will* without any fear of the government regulations. . . . Many people have sold or bought their perpetual property and mouth shares without regard for the regulations. Sometimes they changed the records (illegally) and at other times they declared that they were simply mortgaging their property. The result is that the poor have no place to live, having to drift around as strange doors, and have been doing work on other people's fields. It means that some people have been robbed of their occupation and properties, and the defects and evils are plainly obvious. It is all over the empire, and it has been in such condition for quite a long time. So if we do not correct the same, the condition will be still more aggravated. . . . From now on, all the perpetual property and mouth shares, no matter when and where they were transferred, must be returned to the original owners, if such owners still come to receive them; and the government will pay the price to the holder of such property for the poor people. Hereafter no one is allowed to sell or buy the perpetual property and mouth shares against the government regulations."

REFERENCE: Do Yu Tung Din.

Tien Bau Reign.

Cultivated fields (entitled to be received by the people): 14,303,862 chuans and 13 mows; Doors, 8,900,000.

Hence each door received one chuan and 60 mows.

Agricultural Administration.

REFERENCE: Tsur Fu Yuan Kwei.

Kai Yuan Reign.

First year: Edict: Let people work on the harvest exclusively, and they are not to be disturbed.

REFERENCE: Do Yu Tung Din.

Tenth year: The government no longer gave fields as salaries to officers within and without the capital.

REFERENCE: Tsur Fu Yuan Kwei.

Twelfth year: Edict: to call back the wandering people to open the idle fields at places where they were; the same to be exempt from taxation and service.

Yu Wen Yung was appointed to be the special officer for the encouragement of farming.

Sixteenth year: Order to give fertile fields to the strange doors in different states.

Seventeenth year: Order to suspend the unimportant service, that people may devote more time to farming and mulberry.

Twenty-third year: The rice fields (wet) in the following states: Chen, Hsu, Yu and Shou (Honan and Anhwei) were distributed among the escaping and returning people, and also to the poor.

Tien Bau Reign.

Ninth year: People were prohibited from selling rice crop for purposes of food for cattle.

Fourteenth year: Edict suspending services until the leisure time of farmers.

Government Relief.

REFERENCE: Tsur Fu Yuan Kwei.

Kai Yuan Reign.

The government conducted relief work in Kwan Chung (Shensi) to relieve famine, and also adopted the system of Normally Constant Granary.

On account of drought, the emperor reduced his meal provisions and the government conducted relief work for the worm and flood disasters in Honan and Hopeh (Honan, Shansi, and Chili).

The states suffering flood and drought were excused from

back dues of taxation (in Honan County, more than 400 families were drowned by the flood, and more than 300 chuans of fields were spoiled).

The Yellow River burst forth at the states of Pau and Din (Honan); so special envoys were sent to relieve the states which were suffering flood.

The government conducted relief work in Hopeh (Honan, Shansi, and Chili) for the poor, and transported one million loads of rice from Kiang Wai (Yangtze and Wai River regions—Kiangsu, Anhwei, etc.) to carry out relief.

REFERENCE: Tang Book, chapter on Pei Yiu Ching.

There was a famine in the capital (Shensi); so an edict was issued to distribute rice from the Great Granary to the people as relief.

REFERENCE: Tsur Fu Yuan Kwei.

Because the territory around the capital had more poor harvests year after year, an edict was issued to suspend all service and back taxes. The people were also exempted from taxes for that year.

REFERENCE: Old Tang Book, chapter on the Emperor.

The government conducted relief work at the south of Kiang Wai (Kiangsu, Anhwei, Kiangsi, Hupeh, etc.) to relieve the suffering from the flood.

REFERENCE: Tsur Fu Yuan Kwei.

The government gave the salty, waste or abandoned land, and land that was spoiled by the river tide (Yellow River) to the poor doors and also to those doors which had just returned after wandering away.

Because of good years (the twenty-fifth and twenty-sixth years) the government bought grain to be stored in the granary so as to prepare for future famine.

Tien Bau Reign.

Fourth year: The government used the money of the Norm-

ally Constant Granary to buy great wheat (rough wheat; small wheat is fine wheat; usually great wheat is for horse feed ?) and to store it so as to prepare for the emergency of famine.

Fourteenth year: Edict says, " . . . We often hear that millet and wheat are insufficient . . . "

§ 10. *Emperor Sou Chung (eighth ruler or seventh emperor), (Great Revolution occurred 755-762 A. D.), 756-762 A. D.*

REFERENCE: Tang Book.

Population: Doors 1,933,124; Mouths, 16,900,386. Free from tax: doors, 1,174,592; mouths, 14,619,587.

The decrease from the previous reign (Emperor Hsuan Chung) was due to invasion of barbarians during the second reign of Hsuan Chung.

Decreased: doors, 5,982,584; mouths, 35,928,723.

Agricultural Administration.

REFERENCE: Tsur Fu Yuan Kwei.

Reign Shang Yuan.

Second year: Edict was issued ordering all officeres in the districts and counties to go personally to encourage farming and the raising of mulberry trees.

Edict was given out to provide for one farming officer in each district.

Reign Bau Yin.

An order was given to retain only a third of the army soldiers, sending the rest back to the farms. Also all states were ordered to teach and encourage farming. People ordered to plant promptly and not to miss the proper season. Doors too poor to provide for themselves will be aided by the government. At the end of each year, the results of each state were to be examined.

REFERENCE: Tsur Fu Yu an Kwei.

Edict says: " Recently many fields of the people have been

occupied and appropriated by rich and influential families and officers. The reason why people have wandered away and scattered is all due to these conditions. So hereafter, those who eat up and combine land and fields will be prohibited from so doing. The taxes for those escaped doors not yet returned will be suspended, but they are not to be distributed among the high doors (rich persons) near by."

REFERENCE: Tang Book, chapter on Lee Yuan Hung.

During this time, all the princes and powerful families established Kaus (a kind of reservoir) along the side of Shan Fu Waterways (waterways of the three suburbs of the capital) and they all stored up, and stopped the flow of water and fought for the use of it. So Lee Yuan Hung ordered his men to destroy all these Kaus, so as to irrigate the fields below the waterways, and consequently the people received the benefit.

Government Relief.

REFERENCE: Huang Chen Kau Liu, Brief Research on Government Relief Work.

At this time one do (one-tenth load) of rice was sold at a price of 7000 (cash); and chaff was sold as food. People begging for food were all over the roads. So an edict was issued that any one able to relieve the poor would be rewarded and honored with official rank.

REFERENCE: Tang Book.

Reign Chain Yuan, first year:

On account of famine years, the people were prohibited from selling wines.

Reign Bau Yin, first year:

An edict was issued giving tax exemption to the states suffering from flood and drought.

§ 11. *Emperor Tai or Dai Chung (ninth ruler or eighth emperor), 763-779 A. D.*

REFERENCE: Tsur Fo Yuan Kwei.

Population: Doors, 2,933,125. All people in the universe at this time were exempt from transportation service or contribution.

Income and financial administration.

REFERENCE: Tang Book, chapter on Liu Yen.

Liu Yen appointed Wu-chi to have charge of money and grains of the whole empire. Quite often he used the surplus to make up deficiencies, so that people did not have to pay additional taxes and yet the income was sufficient.

Ti Wu-chi removed all the public money in the government treasury to the private treasury of the emperor. Thus from this time on, the public money was the emperor's; and the officers are unable to find out the amount.

Agricultural Administration.

REFERENCE: Tsur Fu Yuan Kwei.

Edict was issued suspending all services so that farmers may devote themselves exclusively to the farms. All officers in districts and counties were ordered to go in person to farms to comfort the farmers. Exemption was given to people from all taxes and services. Those still finding supplies insufficient were to receive seed so that they might eventually be comforted and content.

The government thought the branch waterways very injurious to the farms and destroyed the waterways in more than eighty places.

REFERENCE: Tsur Fu Yuan Kwei.

Those wandering strangers willing to be naturalized (recorded as regular doors) and to receive the properties of escaped people were allowed to do so, the amount of land received being in accordance with their abilities. Should the

original owners of these fields return, the fields would not be given back to them, but other fields would be assigned to them instead.

REFERENCE: Tang Book, chapter on the Emperor.

Wandering people who returned to their original occupation were exempted from taxes for three years.

The soldier farms at Hwa Chow (Shensi ?) were abolished and given to the poor.

REFERENCE: Tang Book, chapter on Li Kan.

The Chin River (Shensi) was blocked up and obstructed. Li Kan requested that the branch waterways of Chen and Peh (waterways built up by Chen and Peh) be opened and the old courses of the Chin and Han Dynasties be restored so as to irrigate the fields of the people. And more than eighty water-driven wheels used for the rolling of fields were abolished.

REFERENCE: Do Yu Tung Din.

The total wet fields on record were only 62,000,000 chuans.

REFERENCE: Tang Book, chapter on Lee Si Yuan.

In Kwan Chung (Shensi) the people used to depend upon the two waterways Chen and Peh to irrigate their fields. But the powerful people and the relatives of the empress took possession of the upper current of these waterways in order to get the benefit of the Kau, in more than a hundred places. So Lee Si Yuan requested the government to destroy all these Kaus, and the taxes thus obtained were 2,000,000 (?) every year. Consequently the people received the benefit.

REFERENCE: Tang Book, chapter on Lee Tsing Liao.

He dug two waterways, Hsien Yui and Yuan Tsing, in Fung Chow (Shensi ?) to irrigate fields of several hundred chuans.

Government Relief.

REFERENCE: Tsur Fu Yuan Kwei.

Reign Ta Li.

Fourth year: On account of too much rain and the high price of grain in the capital (Shensi), the government sold out the official grain (grain stored in the official granary) to the poor at lower prices. The government also gave land tax exemption to people in Wai Nan (Kiangsu, Anhwei, Honan).

Eighth year: There was a very *good year* in the capital (Shensi); and grain suddenly became cheap. One do of great wheat (do is one-tenth load) was sold at only eight (cash); and one do of millet was at 2000 (cash).

Eleventh year: The government relieved the flood disaster in Hang Chow (Chehkiang).

§ 12. *Emperor Te (or Der) Chung (tenth ruler, ninth emperor), 780-805 A. D.*

(In 780 A. D. Yang Yen established the Bi-Annual Tax System).[1]

REFERENCE: Wen Tsiang Tung Kao.

Discussion on Agricultural Administration by Yeh Shih:[2]

". . . Nominally, the Tang Dynasty had the system of public land distribution, but in reality it was a system of private land ownership. In the later period of Tang, after the military expeditions, the taxation was very heavy and complex, and the government taxed the people in all manner of ways. The regulation was not uniform throughout the empire; and the people were allowed to own their land privately and they could sell it (land) when they so wished. The whole empire was in a greatly disturbed state, and the condition of "gobbling up" set in. Therefore the government was forced to change the system of public distribution into the Bi-Annual Tax System.

[1] From this time on, public land ownership never revived again. The Bi-Annual System of Land Taxes continues even to-day, with slight modifications.

[2] An economist, 1150-1223 A. D.

Financial Administration.

REFERENCE: Tang Book, chapter on Yang Yen.

Yang Yen moved all property from the emperor's private treasury to the care of officials of the government.

REFERENCE: Old Tang Book.

After the rebellion of Lo Shang the people at Kwan Foo, at the capital and its neighborhood, became very poor and exhausted, and many fields were left waste. Then an edict was issued to the effect that oxen be given to the poor at Kwan Foo, one ox to be given to every two or three poor families (fields less than 50 mows) in order to help them do their farming.

The government required the officer in charge of agriculture to present to the emperor one dou each of millet big and small.

REFERENCE: Tsur Fu Yuan Kwei.

Edict was issued ordering the people to work specially on farming and silk culture.

REFERENCE: Ku Kin Tsi Pin Liu.

Chaun Der Yu says: "When the *fields at Kiang and Hwei* (Yangtze and Wei Rivers — Kiangsu, Anhwei, Hupeh, Kiangsi, etc.) *harvest once*, they *will help many other states*; but *when they fail* in *harvest once*, the *other states will have to be much concerned.* The great *policy of the universe depends upon* the *Southeast.*[1]

At present there has been too much rain for two seasons, and the farmers' fields are left uncultivated. The government ought to choose those who are familiar with the situation to go and comfort the people; to inquire into their suffering, and give tax exemption; also to discuss means helpful to the people.

[1] Perhaps because Ah Lo Shan had devastated the north by his invasion and the place had not yet recovered. Another reason would be that of soil-depletion, as the north is the center of the older civilization.

REFERENCE: Ku Kin Tsi Pin Liu.

Lee Me (statesman) ordered all officers to present agricultural books; and also the agricultural officers to present seeds.

Because of the *oxen plague at Kwan Foo* (suburbs of the capital) the money from the two taxes (Spring and Autumn, first adopted at this time) was used to buy oxen for distribution to the farmers.

Since the rebellion of An and Sze (Emperor Hsuan Chung, 713-755) the military confusion continued, and disasters and famine frequently occurred. Consequently people wandered away, and abandoned their original occupations. Besides Buddhism and Taoism were in great force, and the headquarters of these religions were the rallying places for the wandering people.

REFERENCE: Tang Book, chapter on Yen Ying.

Less than one-tenth of the fertile and rich land of the old soldier farms at Fung Chow (Shensi ?) were being cultivated. There were plenty of wet fields, but they were left to waste on account of lack of laborers.

REFERENCE: Chen Chow Tung Tzu (Chen Chow's General Records).

Special envoys (for promoting and lowering the ranks of officers on the merits and demerits of their work) were sent to survey and compare the cultivated lands. The *total amount of cultivated fields* was *1,100,000 chuans.*

REFERENCE: Tang Book, chapter on Hsu Sen.

When he was promoted as the officer of Sou Chow State (Kwontung ?) he called volunteers to cultivate the public land which had been left waste, and let seeds and oxen to them. Half of the harvest from these fields were given to the people. *These waste fields were fertile and beautiful because they had been idle for a long time.* The return in one year amounted to thirty thousand loads.

REFERENCE: Tang Book, chapter on Yu Tso.

When he was officer of Hu Chow State (Chehkiang) there were lakes and ponds which used to irrigate fields of 3000 chuans, but which had been abandoned for a long time. So Yu Tso ordered officials to fix and restore the embankments and dikes, and consequently the harvest of Kong Dow (rice for food) and the return of Poo (grass) and fish in one year were always by thousands.

REFERENCE: Tang Book, chapter on Do Yao.

When Do Yao was the Cheh Do Sze (Governor) of Wai Nam —south of Wai River——Kiangsu, Anhwei, Honan) he opened up the Lay Waterway to extend the effect of irrigation. He *converted* all the abolished *land along the sea coast into fields,* and the rice accumulated (saved) amounted to 500,000 loads.

An edict to comfort and relieve the people in the capital region (Shensi) and also to dismiss ten district officers from their offices:

". . . At present the price of grain is very high, and the people are greatly disturbed. They are unwilling to stay in their villages and homes, and kin-folks and relatives are parted. Wandering, desertion and starvation are things which ought not be countenanced. Both the government and private people have exhausted their granaries and provisions. . . . "

Edict to give crop seed to people in the capital region (Shensi) and the states of Tung, Hwa, etc. (Shansi); and also to relieve the poor:

". . . The villages and countries are about the same as in old times but the smoke and fire are extinguished (meaning population). The seed and food are already deficient, and farming and cultivation abandoned. . . .

" So envoys are sent out to transport by boats all the millet and wheat collected many years ago, and now stored in the different granaries, so as to give them to the poor, and to relieve first those who are widowers, widows, orphans, single persons, etc., and who are too poor to support themselves. The pur-

pose is to distribute the relief equally, and to keep the entire wandering population alive."

Report to the emperor on Pinti (equalization of grains or price of grains by government buyings) written by Lo Tsi:

"Recently many armies have been raised and the storage of the government is only sufficient to supply the army provisions. So the government has no power to relieve and save the people in bad and famine years. Consequently when the people are slightly in want, they will have to get loans at heavy interest; and when they are greatly in want they will have to sell out their farms and houses. As soon as they get through with their work of the harvest, they are already offering their farm certificates (property certificates or ownership certificates) in order to obtain loans. They have to suffer hunger and famine, and the members of the families desert one another. They ask to become slaves (sell themselves) but nobody wishes to buy them (no one has the money or cares to buy them). Some even hang themselves on the roads. . . .

"So now the government ought to equalize the price of grain by buying it (in order to sell it to people again at a fair price). In this way those who are taking advantage of disasters to accumulate grain (in order to make high profit by selling out at high price) will have no chance to obtain the high profit."

Reference: Tzu Chih Tung Chien (General Political History).

Lo Tsi's request to the emperor to use the fund from the tea taxes to establish the Yi Chang (charity granary) to prepare for the emergency of flood and drought:

"The regulations of the ancient sage emperors were to store up the grain all the time, in order to prepare for the emergency of misfortune and famine. When the regulations of the sage emperors were discarded, the political policies came into play. The State Wai (Warring States, near end of Chow) adopted the system of Pinti (equalization of price of grain by government buying and selling); and Han Dynasty established the

Shang Pin Granary (Normally Constant Granary). The benefit of these systems were on both sides (government and people) so they were very satisfactory. When the Sui Dynasty (immediately before Tang) was in power, it established for the first time the Yi Chang (charity granary). All through the reign of Kai Huang (first emperor of Sui) the people suffered no famines. At the beginning of the reign of Jen Kwon (second emperor of Tang, considered one of the golden ages in Chinese history) Dai Tso (an official) advanced a proposal to store up grains in order to prepare for the emergency of famine. The emperor, Tai Chung, was pleased with his advice, and therefore established Yi Chang (charity granary). The idea was to collect (buy) and store grain in plentiful years and to distribute and give grain to the people during deficient years. Throughout the reign of Kau Chung (third emperor of Tang) for a period of fifty to sixty years the people received the benefit of the government help. After the reign of Kau Chung, the government was in a difficult stage (Empress Dowager Wu and military confusions on her account) and consequently this system (charity granary) was abolished. During the Ki Yuan Reign (Emperor Hsuan Chung) the system of charity granary was gradually revived and restored. . . .

"At the present time the taxes and services have already become too complicated,[1] and the strength of the people has already become exhausted. The people have been working very hard through all these poor years and they never get any savings. Although they have been asked by the government to contribute grain for storage, yet they have never been able to supply it. If the government wants to establish the basis for storage and savings, it will have to depend upon the help of the official income to do it. So I request the emperor to use the fund from the tea taxes of 500,000 strings to establish a Charity Granary (Yi Chang) in order to prepare for the emergency of flood and drought."

[1] Lo Tsi was the leader of the rival school to Yang Yen. Therefore he is in opposition to the Bi-Annual Tax System.

Government Relief.

REFERENCE: Tang Book, chapter on Food and Commodities.

Reign Chain Chung.

Third year: Chow Tsen suggested to the emperor to provide funds for the Normally Constant Granary; and also to levy taxes on merchandise passing from one place to another (as in the Li Chung System) using this money as the fund for the Normally Constant Granary.

REFERENCE: Tsur Fu Yuan Kwei.

Reign Shin Yuan.

First year: An edict was issued to give rice in loads to states suffering from famine caused by worms. (Sung, Pau (Honan), Tsi, Tsing (Shantung), Tsao, Loh, Ho Tung (Shansi), Hen, Tsi, Yu, Yi, Tin, Wai, Pao (Chili), etc.).

Reign Jen Yuan.

First year: There was a great famine in Kwan Chung (Shensi) due to worms; so the emperor reduced his provisions.

Second year: On account of the famine year, the government suspended the January festival celebration and reduced the imperial meal provision.

Fourth year: Officers were sent out to lend seed to the states suffering from flood and drought.

Sixth year: The county of the capital (Shensi) was supplied with wheat seed by the government (wheat was the crop there at the time).

REFERENCE: Old Tang Book, chapter on the Emperor.

Eighth year: On account of flood disasters in the universe, the government conducted relief work in different states; and the different states were ordered to make exchange of grain (Ho-ti System—exchange grain at a fair price).

REFERENCE: Old Tang Book, chapter on Food and Commodities.

Ninth year: Tea was taxed, and the income was used to

prepare for the emergency of flood and drought. All the counties and states were ordered to stop the transportation of grain.

REFERENCE: Old Tang Book, chapter on the Emperor.

Twelfth year: On account of drought in the capital region, an edict was issued to exempt people from taxes.

Fourteenth year: An edict was issued to excuse the counties and states from back taxes. On account of poor years and high price of grain, the government sold grain (millet) from the Tai Chang (Great Granary) so as to benefit the people.

Eighteenth year: The government gave silks, rice and salt to different states which had suffered flood and drought, and also exempted the people from some of the Bi-Annual Taxes, according to their condition (ability to pay).

Twenty-second year: The financial officer of the central government (Treasury Department) reported to the emperor requesting the adoption of the System of Ho-ti [1]—Exchange of Grains, or Equalization of Grains—to save the farmers.

§ 13. *Emperor Hsien Chung (eleventh ruler, tenth emperor), 806-820 A. D.*

REFERENCE: Wen Tsiang Tung Kao.

Yu Chow, the county officer of Hu Chow, restored the West Lake at the Fong Mountain of Chung Chen District to irrigate thirty chuans of fields.

REFERENCE: Tang Book, chapter on Food and Commodities.

The camp fields were established this time and cultivated. People were hired to cultivate on the camp fields in the universe.

[1] The System of Ho-ti was probably as follows: During the good years, the farmer pays a certain percentage, say two to five per cent extra, to the government in addition to regular taxes; and the government stores this extra amount of grain in the government granary. At the time of famine, the government was to use this grain for relief work and give this grain to the poor to save them from starvation. So the system was called "Equalization of Grains", or "Exchange of Grains" (good for bad years).

REFERENCE: Ta Show Yen Yi Poo.

During the reign of Tang Hsien Chung, Han Chung Hwa was appointed as the director of Yin Tien (camp fields, or fields for soldiers). He opened Yin Tien at Tai Peh (north Shansi) and organized fifteen Tans (groups or camps), every tan consisting of 130 men, every man cultivating 100 mows (Tang measure). Altogether they cultivated over 3800 li of fields, and they received an annual harvest of 200,000 loads of millet. This saved over twenty million strings of cash for the treasury department of the government.[1]

REFERENCE: Tang Book, chapter on Wai Tin.

When Wai Woo was the officer of Tsiang Chow State (Shansi) he dug the Fen River to irrigate fields of more than 13,000 chuans.

REFERENCE: Tang Book, chapter on Peh Chu Yi (a poet).

When Peh Chu Yi was the officer of Hong Chow State (Chehkiang) he was the first to build up embankments against Chain Tang Lake, and thus used them to store and drain the water so as to irrigate fields of one thousand chuans.

REFERENCE: Tsur Fu Yuan Kwei.

Edict ordering people to plant two mulberry trees in each mow of fields.

Report of Yuan Tien, the special envoy for investigation of Tung Chow. . . . He finds that conditions demand an equalization of land. Tung Chow (Shansi ?) is in the territory where the Bi-Annual Tax System had been adopted. Since the Tsen Yuan Reign of Emperor Der Chung (when the Bi-Annual System was first established) to the present time

[1] Calculation according to this passage: One man cultivated 100 mows (Tang measure). 15 Tan with 130 men each made 1950 men. Hence 195,000 mows were cultivated; and the annual harvest would be about one load of millet for one mow (all Tang measure), as there were 200,000 loads altogether. Since they saved 20,000,000 strings, it means that one load of millet was worth 100 strings of cash, which is a rather high figure.

(Emperor Hsien Chung) there has been a lapse of twenty-six years.

"*During this period people and doors have escaped and moved away; while the fields have been left waste and abolished.* And also those districts near the Yellow River have been invaded by the river, and covered by the sand. *And sometimes the rich and influential* people *have eaten up and occupied land from fields to fields on an extensive scale.* So the fields which have been actually taxed are only twenty to thirty per cent of the total amount of fields.

"All these conditions cause the poor and lonely to escape and leave their places, and also to leave the taxes unpaid. This is the reason why the district has to go into bankruptcy. So I (Yuan Tien) wish to equalize all the land and fields and there will not be even any slight cheating and hiding." [1]

Government Relief.

Reign Yuan Ho.

REFERENCE: Old Tang Book, chapter on Food and Commodities.

First year: There was a good year, and the system of Ho-ti (exchange of grains) was adopted in the capital region (Shensi).

REFERENCE: Tsur Fu Yuan Kwei.

Second and fourth years: The government gave tax exemption to those divisions (provinces or states) which were suffering drought and flood, and the people were relieved with government grain.

Sixth year: The government lent grain to the poor from the Normally Constant Granary and Charity Granary.

Seventh year: The government excused the people from return of government loans given in preceding times. It adopted the system of Ho-ti so as to prepare for the emergency of famine.

[1] In Tung Chow people paid 9.5 sens of grain and four bundles of grass for one mow of land (one sen is one one-hundredth of a load). Taxes on wine were altogether twenty-one cash for this much land.

Ninth year: The government gave grain from the granary to relieve the famine. On account of drought, the government also gave exemption to people in the capital region (Shensi) of summer taxes and green sprout money (taxes to be paid when green sprouts were in the fields).

Fifteenth year: The government gave tax exemption to those whose crops had been injured.

§ 14. *Emperor Mun Chung (twelfth ruler, eleventh emperor), 821-824 A. D.*

Reference: Tsur Fu Yuan Kwei.

An order was issued stopping the building of fences and walls at Ho Yin (north of Yellow River ?) for fear of their being injurious to farmers. Officers and strong (physical) persons who owned no land, but who had adults were allowed to cultivate on the waste land deserted by the escaping people, and they were allowed to take this land as their permanent property.

Officers were prohibited from taking camp fields from the people and also prohibited from exchanging lean fields with the fertile and rich ones (of the people).

Reference: Tang Book.

The "White Water" Reservoir (where ?) was built to establish the soldiers' farm, and the people of the states Tsing (Shangtung), Hsu and Yang (both Kiangsu) were sent out there to dig the reservoir.

Government Relief.

Reign Chang Ching.

Reference: Old Tang Book, chapter on the Emperor.

Second year: The government relieved the flood disasters in the states of Chen and Hsu (Honan).

Reference: Six Examples of Writing of Pei County.

The government gave out rice to relieve the famine in Cheh Tung (Chehkiang).

Fourth year: There was a good wheat harvest, so the government adopted the system of Ho-ti (Exchange of Grains) so as to prepare for the emergency of famine.

§ 15. *Emperor Tsin Chung (thirteenth ruler, twelfth emperor), 825-826 A. D.*

Reference: Old Tang Book.

Oxen were bought and given to the poor inside the capital limit.

Reference: Tsur Fu Yuan Kwei.

Camp fields were established at Der Tsin Waterways, amounting to 600 chuans.

Reference: Old Tang Book, chapter on the Emperor.

Reign Bau Li.

First year: The government distributed ten thousand oxen to the suffering farmers in the capital region.

§ 16. *Emperor Wen Chung (fourteenth ruler, thirteenth emperor), 827-840 A. D.*

Reference: Old Tang Book.

An order was issued for distribution of three volumes of Chao Ren Pun Yen (Fundamental Occupations by Chao Ren) to all villages.

Government Relief.

Reference: Tsur Fu Yuan Kwei.

On account of flood and drought in different states, the emperor issued an edict to relieve the famine, to exempt the people from taxes and to transport the grain for exchange.

Reference: Old Tang Book, chapter on the Emperor.

The government distributed grain from the granary to relieve and save the farming people.

The edict says: "If the government does not relieve and save the people, I (the emperor) am afraid the *people will wander and escape from their places.*"

REFERENCE: Tsur Fu Yuan Kwei.

On account of poor years, the government exempted the people from taxes and green sprout money, and also transported the rice and sold it at a lower price.

The government exempted from taxes the states suffering flood and drought, such as Yang Chow (Kiangsu), Tsu Chow (Hupeh), and Chehsi (Chehkiang), Honan, Wai Nan (Anhwei, Kiangsu), Hunan and the two Chuans (Szechuan).

The government relieved the states which were suffering drought and worms, and all the public (government) or private debts of the people were suspended or exempted.

The government used the grain from the charity granary to relieve the people who were suffering flood.

§ 17. *Emperor Wu Chung (fifteenth ruler, fourteenth emperor), 841-846 A. D.*

REFERENCE: Old Tang Book.

People were prohibited from using mulberry trees for fuel.

REFERENCE: Tsur Fu Yuan Kwei.

Edict: "The mulberry fields (may be, mulberry and fields) left by escaping doors more than two years are to be always rented out to other people in order that they may not be left waste and abolished. The rentals after the government taxes have been deducted, are to be kept by the government and given back to the original owners when they return."

REFERENCE: Tang Book, chapter on Food and Commodities.

The Buddhist temples were destroyed to a large extent, and priests and nuns forced to become regular people. Altogether there were restored 256,000 free persons, 150,000 slaves and several ten millions of chuans of fields (temple and monastery grounds).

The fertile fields were sold and the money sent to the Agricultural Department; and the medium and inferior fields were given to the temple families.

Adult slaves, who were physically strong, were classified as regular doors under the Bi-annual Tax System. Every man was given ten mows.

REFERENCE: Tsur Fu Yuan Kwei.

Reign Hwai Chang.

Sixth year: On account of drought, the government exempted the people from summer taxes.

§ 18. *Emperor Shen Chung (or Siuen Chung), (sixteenth ruler, fifteenth emperor), 847-859 A. D.*

REFERENCE: Tsur Fu Yuan Kwei.

Order permitting people to rent temporarily the mulberry fields of escaping doors.

Second year: In all the states and counties there were always some leisure fields. These fields did not produce anything but weeds; and no one was working on them. So it would be better to give them to the poor rather than leave them to waste. Thus the chief officers of each district are ordered to gather together these poor people and to teach them the methods of planting.

Fifth year: The killing of oxen was severely prohibited.

Prisoners sentenced to capital punishment were excused from death and exiled to the three cities, Cheh Wen, Ling Woo and Tien Der (where ?) to plant and cultivate the good fields.

Edict was issued that those owning no land who are near to the fields of escaped doors be allowed to cultivate them temporarily. If original owners do not return in five years, the fields, mulberries and dwellings to become the property of the tenants; but the latter are not to destroy the properties nor cut the trees.

"The fields in places such as Yuan Chow (northern part of Shansi) which are very rich and fertile, are to be given to people to open and cultivate. The same are to be exempt from taxes for five years after which the fields become their permanent property."

Government Relief.

REFERENCE: Tsur Fu Yuan Kwei.

Reign Ta Chung.

Fourth year: The government relieved the states which had suffered drought.

Sixth year: The government prohibited the use of noodles for making yeast (wine making).

REFERENCE: Tang Book, chapter on the Emperor.

Ninth year: On account of drought, the government reduced the taxes for the people in Wai Nan (Anhwei). The people were excused from back dues, and grains were distributed to the poor.

REFERENCE: Wen Yuan Hwa Yin (Essence of Literature).

Same year: The edict says, " . . . There are several divisions (states) which are suffering plague, and the people *are wander-away and deserting* their native homes. . . . "

§ 19. *Emperor Yi Chung (seventeenth ruler, sixteenth emperor), 860-873 A. D.*

REFERENCE: Tang Book (or Tsur Fu Yuan Kwei ?).

Edict: Those who have rented fields and land left by escaped persons are to become owners of these fields after they have worked on them for more than five years.

REFERENCE: Tang Book, chapter on the Emperor.

Reign Shen Tung.

Second year: The government exempted from taxes the districts and counties such as Yin Chow (Honan) which were suffering flood disaster.

§ 20. *Emperor Chao Shen Chung (last and eighteenth emperor), 889-905 A. D.*

Reign Tien Yu, second year:

REFERENCE: Old Tang Book, chapter on the Emperor.

On account of drought the emperor reduced his meal provisions.

REFERENCE: Tsur Fu Yuan Kwei.

The edict says, " The *wheat* crop has not yet been harvested and the weather has been dry for a long time."

CHAPTER IX

Sung Dynasty, 960-1276 A. D.

I. *Sung Dynasty, in general*

Reference: Written Dialogues at the Dreaming Brooks (Mon Chi Be Tan).

Adoption of mud fertilization.

Historical records—" with one load of water from the King River (Shensi) and with several do of mud from the river side, the fertilization and irrigation are applied to raise up our rice fields and millet."

Reference: Yeh Tsing Chen, Pity on Farmers (a poem).

The fields are full of hollow ears, and there is no good harvest.

Reference: Liu Ping (active 1041-1048).

There was no harvest last year; and the wheat crop results in famine also this year. . . . The plains in the country are just as red as jer (red color), and of the whole planting of the rice crop nothing is left. Whether it is crop or weeds, it is impossible to tell, and all over the four sides there grow all kinds of weeds.

Reference: Wu Ta Chung (1068-), Normally Constant Granary.

In this report to the emperor Wu Ta Chung tells of the luxury of the period among the rich, as the eating of meat, the wearing of silks and embroideries and riding in carriages, etc. He blames the bad conditions to this extravagance, in a similar vein to the complaints found in ancient Rome.

REFERENCE: Liang Tao (1068).

Urging the relief of conditions, Liang Tao reports to the emperor that "*the people have been exhausted for a long time and yet the years are poor again and again.*"

REFERENCE: Shang Kwan Twain, Petition for the Restoration of the Charity Granary.

The Charity Granary System was adopted by Emperor Wenti of Sui Dynasty and also by Emperor Tai Chung of Tang (second emperor of Tang). In the tenth year of Emperor Sun Chung (Wong An Shih's period) the government began to consider the old system of the Sui and Tang Dynasties and restored the system of the charity granary for the first time. The method was to levy an extra tax of five sen (one sen equals one one-hundredth of a load) for every load of the regular land tax levied (therefore five per cent) and to use the grains from this extra tax for the Charity Granary which made loans to the poor in times of famine. But the system was again abolished in the eighth year of the Yuan Fung Reign of the same emperor (eight years later); and we regret this abolishment even today.

REFERENCE: Su Sze (one of the great writers of Sung, 1036-1101), on Crops.

"Did you ever see the crops of the rich? Their fields are beautiful and abundant, and their food is sufficient and even excessive. If the fields are beautiful and abundant, then the soil is able to rest and the strength of the soil can be fully utilized. If the food is sufficient and even excessive, then the plantation does not have to be behind times and the harvest is always allowed to be at the time when the crops are really ripe. Therefore the crops of the rich people are always beautiful, less chaff and better kernels.

"But now a family with ten mouths works on 100 mows only (used to be from five to eight people in Chow period and on superior land if only 100 mows) and one has to get everything from every inch of land and is looking forward to

getting it day and night He has to furrow the land, cut off the weeds, and everything you find on the field is almost as thick and crowded together as scales on a fish. *In this way the strength of the soil is exhausted.* The planting usually does not wait until the proper time and the harvest usually takes place before the crop is ripe. So how can you expect to have beautiful crops?"

REFERENCE: Sze Ma Kwong (conservative scholar and statesman who was contemporaneous with Wang An Shih—farm loans advocate—and opposed the latter's policies for remedying the situation).

"Old women of the farming families are almost all gray haired, but their houses are empty and lonely, and they have no strong sons. The old men carry the sickles with strings, the old women carry the sifting screens (sieves). They have fields rented from others to harvest their crop 'tis true. Late in the quiet of night, all members of the family thrash the crops by turns so as to avoid creditors. However as soon as day dawns, these creditors are awaiting outside the doors, crowding together like hemp seed. The muscles and strength of these farmers are all tired out; but they have nothing to go into their stomachs. . . . The district officers are in such great hurry to collect their taxes."

REFERENCE: Su Sze, Poem to Encourage Farmers.

"Heaven wants to punish your soil, thus there is no harvest of wheat, nor millet. They plant good trees, but harvest only worthless wastes. . . . It is because there are no good fields. And the plain land is all over the country."

REFERENCE: Tung Bo Tsi Ling (Tung Bo is a special name of Su Sze, 1036-1101), Observations of Tung Bo.

"When I went to hunt for a place at Chi Sui (Hupeh) the land was on a plateau. If we sow seeds amounting to one dou (one-tenth load) we get rice amounting to ten bu (load is ancient term for dun; but in modern use, bu is used for one-fourth of a dun). What is the cause of this great production?

It is because all the mountain chains are full of wild grasses and scattered wood, and no crops have ever been produced there. *So the soil has never been exhausted. Therefore the return is so great. Hence I know the crops use up the soil very much.*"

REFERENCE: Chui Sau Yea, Discussion on Earning a Living.

" Thirty years ago the officers were very careful about their works. Thus everywhere you go you find beautiful fields. The big families all want to buy land. The owners double the price. But recently officers neglect their duties. *Everywhere you go you will find very bad conditions. All the former rich fields have to be sold at one-half their value.* Quite often you find people not daring to approach them (to buy them). The conditions of the world have been changed."

REFERENCE: Yeh Si (scholar and writer, 1150-1223 A. D.), Opinions on the Restoration of the Tsing Tien.

" Generally those who are able to pay their taxes and service directly to the government are less than one-third of the whole number. Those who own land prosperously do not work on it themselves, while on the other hand, those who cultivate do not own any land. . . . "

REFERENCE: Tsui Sze (1130-1200 A. D.), on Urging Farmers.

" The soils are lean and the taxes heavy. Besides the people do not want to work hard on plowing and cultivation, cutting off weeds, etc. The soils are neglected and torn out, and many sections here (under his control) are different from others places. Therefore the veins of the soils are thin and shallow, the weeds abundant and the sprouts scarce. *If the rain is slightly out of season, there will result famine and insufficiency.* . . . .

" In this year the soils of the fields are poor and lean, and the flesh of the soil is generally less than three or five inches. . . . therefore *the fields become poor and lean every day, and the harvest becomes very scarce.* In case there is any flood or drought, people will have to wander around and shift to other

places. On one hand, they have to lose the property inherited from their ancestors, and, on the other hand, they have to make deficient the regular taxes of the government. . . . . When I went to inspect farms at the beginning of spring, I saw some *fields at the roadside which had not yet been plowed.*

"Most of the small people in the villages belong to the families which own no land at all, so they have to ask fields from their landlords. Frequently they have also to borrow grain and rice from the landlords during the time of plowing, sowing, cultivation, etc., till the harvest in the winter when they begin to pay their debts all at one time.

"In our districts there is rather a large number of waste fields."

REFERENCE: Do Fan (1208-1234 A. D.), Report about the Drought Disaster.

"*Although there were natural disasters (rain, etc.) and serious drought in the previous periods, the conditions in those days were never as bad as today. At present the granaries and treasuries are empty and the provisions are not enough for a month's supply. One sen* is sold at 1000 (cash ?) and the price is *still increasing without limit.* Even the rich families have been destroyed, and nine out of ten houses are empty. Sometimes whole families have died from starvation and some have gathered to drown themselves in the Yangtze. In the villages and lanes persons gather to criticise the government officials and the complaints among the soldiers are too severe to hear. The condition is serious. And it appears right in the heart of the city of great crowds (the capital). The *territory of Chehsi* (Chehkiang) is *the region* where *rice is supposed to be collected* (much rice is produced in the region) *but now the red land in this region covers 1000 lis.* The people in the Wei region (Anhwei, along Wei River) are wandering away and deserting their homes continuously, carrying their babies and wandering on the roads. They wish to find a home, but there is no such place for them; so they simply wander until tired out and exhausted, they wait for death."

REFERENCE: Sung Book, chapter on Chung Yuan (exact date of Chung Yuan not known, probably 1068).

Chung Yuan says: "In *the fields there are even no green grasses.*"

REFERENCE: Jen Der Show (1195-1224 A. D.), Report Asking Rice for the Relief of the People in Tai Pin and Kwong Der (Anhwei).

In this year the division of Kiangtung (Kiangsu and Anhwei) has suffered more than any other division, for the drought and worms in the two districts Tai Pin and Kwon Der are the worst among the places of Kiangtung. The reason is this: *In this district* (Kiangsu and Anhwei) *the land is very lean and thin. Even during the years of best harvest, the people have difficulty in getting food.* Now from the spring to the autumn, the people cannot get their seeds planted. So we can imagine the desperate situation. . . .

Fifth report on the same question.

At present it is not very long since the time when the wheat crop was harvested, yet the market price for rice is 40 cash per sen (one hundredth load). From this we can easily see that the people have great hardships to get their food provisions.

II. *Northern Sung, 960-1127 A. D.*

§ 1. *In general.*

Cultivated Fields.

REFERENCE: Sung Book, chapter on Food and Commodities.

	Area of cultivated fields
Emperor Tai Tso, end of Reign Kai Pau[1] ...	2,952,320 chuans
Tai Chung, second year, Tzu Dou Reign	3,125,251 "
Jen Chung, fifth year, Tien Si Reign	5,247,584 "
Ren Chung, Reign Huang Yu	2,280,000 "
Yin Chung, Reign Tzi Ping[2]	4,400,000 "

[1] The population then was a multiple of that during the Tsing Der Reign, so this record could not have been accurate.

[2] Some writers state that the figure for the reign Tzi Ping refers

REFERENCE: Wen Tsiang Tung Kao.

Sun Chung ..... 4,616,556 chuans
(people—4,553,163; official fields—63,393).

Comparison with:
Han (best time, towards end of First Han).. 8,270,536 chuans
Sui Dynasty, last of Six Dynasties ..... 19,404,276 "
Tang Dynasty, Emperor Shen Chung
The number of fields to be received by
people were ..... 14,303,862 "

REFERENCE: Southern Sung Book, chapter on Emperor Lin Chung.

Kau Chung, fifteenth year, Shaw Sin Reign[1] ... 26,500,000 "

REFERENCE: Wen Tsiang Tung Kao.

"These figures of Han, Sui and Tang Dynasties are either two, three or four times that of the Sung Dynasty. Although the territory of Sung does not include Yu Ki in the north, nor Lin Shar in the West, nor Chow Tzu in the south; half of these three regions was land on borders and used for military camps. So the cultivated fields in the above territory were probably not many, and consequently should not be several times as many as those fields in the interior territory. But then how would we explain the irregularity of the record?

"According to Tsi Ping Qwei Chi Luh, by the method of accounting during the Tsi Ping Reign, the amount of fields represented only what was subject to taxes, and the amount of fields which was not subject to taxes was about seventy per cent of the total. Thus taking it as a whole, the cultivated fields in the universe must be more than thirty million chuan.

"And the Sung Book says, 'there have been many waste

only to the fields subject to taxes, and that the fields not subject to taxes were seventy per cent of the total amount of fields. No records were very accurate at this time, due to the conditions prevailing. Waste fields must have been many. Those on record were already 480,000 chuans.

[1] Taxes in rice received (both summer and autumn taxes) were 141,000 loads.

fields which have not been cultivated in the universe, especially in King (capital), Sheng, Tang, and Teng (Honan and Hupeh). During the reign Tsi Ping (Emperor Yin Chung) and Si Lein (Emperor Sun Chung) many (waste) fields have been opened and cultivated continuously. But out of one hundred mows of land, only four mows are subjected to taxes. When the government wanted to increase the taxes to twenty mows (out of one hundred) it was said that the people would suffer because of the heavy taxes and would wander and move again. So the government gave up the idea of increasing and taxes.'

"From this we see that the fields which are not subject to taxes are even more than seventy per cent of the total. Therefore although the amount of fields on record is not so much as in the previous dynasties, yet the residual benefit (benefit not on record) enjoyed by the people is very great."

§ 2. *Emperor Tai Tso (first emperor), 960-975 A. D.*

References: Sung Book; also Ku Kin Tsi Pin Liu.

People were encouraged to plant and cultivate and also were taught to plant trees.

Edict: No additional taxes will be levied on people who plant trees or open new fields, and those district officers who can encourage people to do such things will be rewarded.

The emperor visited Yu Chin Yuan (the imperial garden) to inspect rice and also visited south of the city wall to inspect wheat.

Edict: Those with deep knowledge of the planting of trees and crops are chosen as farming instructors to inspect and determine the fertility of soils, and the adaptability of each to the five kinds of crops.

People in Kiang-Peh are planting crops of various kinds; but those in Kiang-Nam are planting only rice. The practise of the ancient farmers was to plant crops of all kinds so as to prepare for the emergency of flood and drought (although the crop has to be adapted to soil and climate conditions). Hence officers in different states as Kiang-Nam (south of Yangtze), Two

Chehs, King Hu (Hupeh), Ling Nan (south of the mountains, Kwantung), Fukien, etc., are ordered to encourage people to plant more of other kinds of crops besides rice.

Those needing seeds of wheat, millet, and beans will be supplied from Wei Pei (states north of Wei).

People north of Kiang (Kiang-Peh) are ordered to plant rice wherever there is plenty of water. They were also excused from taxes.

The killing of oxen is to be severely prohibited. The government manufactured several thousands of plows invented by Woo Yuan Chen, which could be operated without oxen, but simply by human power; and distributed these among the people of Sung Po (Honan).

Edict: People farming on unoccupied fields will be granted permanent ownership, and also be exempted from taxes for three years; after which they only pay one-third taxes.

. . . the fields which are now being cultivated amount to only *twenty to thirty per cent.* People are deserting farming and accustoming themselves to wandering and laziness. . . . At the beginning *the reason why people wander around is because they were poor and suffering, or because they desired to avoid private debt or escape government taxes.* . . .

Besides cultivation and the raising of mulberry trees, people were ordered to plant other trees, vegetables and fruits, and to raise sheep, dogs, chickens and pigs.

No tax is to be levied on land not adaptable to cultivation.

§ 3. *Emperor Tai Chung (second emperor), 976-997 A. D.*

Reign Tai Pin Chang Sin.

REFERENCE: Sung History, chapter on Food and Commodities.

Special agricultural teachers were provided to look after the condition of the soil, fertile or lean, of the land and also its adaptability for different crops (five kinds). In case of persons who have been drinking and gambling and neglected their farm affairs, the agriculture teachers were to report them to the district officers and such people were to be severely punished.

Reign Tan Kun, second year:

REFERENCE: Northern Sung History, chapter on Food and Commodities.

Chen Yao-Sou, officer of the treasury department, proposed to establish Tan Tien (soldier fields) and Yin Tien (camp or troop fields, also for soldiers) and he reported to the emperor as follows:

"Every unit, one Tan, should consist of 1000 men, each of them cultivating 50 mow (Sung scale) of land, and provided with an ox. The annual harvest of one mow will be approximately three loads. So one Tan (1000 men) will receive the annual harvest of 150,000 loads of grains."

REFERENCE: Ku Kin Tsi Pin Liu.

The sprouts of millet grew several feet long this year. *But for a great many years, many crops did not make good harvests.* Rich people speculated, while the poor had to pay in debt double value. Even though there be occasionally a rather good harvest, the rich collected their loans urgently. Thus the savings of the poor were gone before they could clear their rent and taxes. *The government therefor prohibited the rich from charging more than 100 per cent interest* on loans of wheat, rice or money.

REFERENCE: Chen Tsing's Report to the Emperor.

"*The land near the capital east and west, north and south, all around, amounts to about twenty to thirty states with an area of several thousand lis. But within this* area the *fields* which have been *cultivated* are *only about twenty to thirty per cent* of these cultivated fields, those which *have paid their taxes and* rent are *less than fifty to sixty per cent.*

"*Some doors have broken and escaped entirely, and some have been lazy in farming and have given up their occupations.* As soon as they cultivate one foot or inch of fields in the morning, their names will be on the tax list in the evening. Even when the government exempts them from taxes, yet they

will have to pay all sorts of expenses from time to time, which are even more than the taxes required.

"Moreover when *people have escaped and left their places either to escape private debt or public taxation; they really cannot help deserting the place.* For, as a result of their escape, all the things left behind will be gone, and will no longer be there when they wish to return. They have no way of getting their farming implements nor any means to make their living. Consequently they have to remain away and wandering, and to make pursuit of food in strange countries. Thus even if they do come back to their original farm, they have no way to practice cultivation.

"Hence we request the *government to call* everywhere the wandering or those on branch occupations as *volunteers, to rent leisure or unoccupied fields and that no taxes or rents be levied on them.*"

Reign Tzu-Dow, second year:

REFERENCE: Northern Sung History, chapter on Food and Commodities.

In accordance with the proposal of Chen Tsing, scholar of the Imperial History Bureau, the government gave funds to the deserting people and floating strangers, and asked them to cultivate *waste fields.* The land was classified into three classes: (1) That which was fertile (not apparently exhausted) and also free from danger of flood or drought was called superior class; (2) either that which was fertile but with danger of flood or drought, or that which was exhausted but without danger of flood or drought, was called the medium class; (3) that which was exhausted and also in danger of flood and drought was called inferior class.

Of the superior class of land, every man was given 100 mows (Sung scale); of the medium class, 150 mows; of the inferior land, 200 mows. They all were taxed beginning after five years from the date they began the cultivation. No matter what class of land they received, they were to pay the tax according to 100 mows and at the rate of 30 per cent.

For a family of three to five male adults, they were to receive the share of three men (i. e., 300 mows superior land, etc.); for a family of seven male adults, the share of five men; for a family of ten male adults the share of seven men; above 20 male adults in a family, the share of 10 men, which was the maximum limit.

In addition they were given land for houses, for the raising of vegetables and of different trees, such as pear, date, elm, and willow, as follows: For a family with ten male adults, 150 mows; with seven, 100; with five, 70; with three, 50 and with one or two, 30.

If they planted mulberry on these lands, they were to pay a tax after five years; but if they were to use the land for other purposes they were exempted from taxes.

Chen Tsing was therefore appointed by the emperor as the special officer to take charge of this "unconscious Tsing Tien" and to encourage the farmers in the division of King Si (west of capital, Honan) and he went to inspect the different states, such as Chen, Hsu, Tsai, Yin, Shun, Tan, Tang, Yu, etc. (Honan), and to encourage people to cultivate the waste land.

Soon afterwards, however, the ministers of the government found that it would involve an excessive amount of government expenditures (care of land, records, giving funds to people, etc.). Moreover they were of the opinion that should there be any flood or drought, the whole scheme would fall to pieces. So they dropped the scheme entirely.[1]

REFERENCES: Sung Book, chapter on Food and Commodities; also Ku Kin Tsi Pin Liu.

"In *recent years many crops had no harvest,* and *the rich have been monopolizing the interest of speculation,* while the *poor* have *had to pay interest of 100 per cent on loans.* Thus even though the years were fairly good, at such times the rich were stricter in collecting their loans from the poor. Conse-

[1] The emperor said, in effect, *I wish to restore the Tsing Tien System, but it is impossible. Thus he intended to adopt the above system, but it was shortly abolished, as all the officers held different opinions.*

quently the stores and savings of the people were all exhausted before they paid off their taxes and rents. So from this time on the rich were not allowed to charge more than 100 per cent interest on any loan of rice, wheat, money or other equivalent. The poor were not permitted to pay their private debts (to rich) unless they had first paid the government taxes. Those who violated these regulations were to be punished.

" It is said by some that the people in Kiangpeh (north of Yangtze—Shansi, Shensi, Shangtung, Honan, Chili) were planting all kinds of crops, while those in Kiangnam (south of Yangtze—Kiangsu, Anhwei, Kiangsi, Hupeh, Hunan, Kwongtung, Fukien, Chehkiang, etc.) were planting rice only. Although this is the result of each adapting his crops to his climate and soil, yet it was the ancient practice to plant different kinds of crop to prepare for the emergencies of flood and drought. Therefore an edict was issued at this time ordering local officers in Kiangnam (Kiangsu, Anhwei, Kiangsi), the Two Chehs (Chehkiang), Chin Hu (Hupeh, Hunan) Linnan (Kwongtung), Fukien, etc., to urge people to plant more of different kinds of grains. If people were short of seeds such as millet, wheat and beans, the government was to supply the same from counties of Wei Peh north of Wei River (Honan, north Kiangsu Shantung, etc.). And the states in Kiangpeh (north of Yangtze) were ordered to use wet lands for rice crops—these to be exempted from taxes.

Reign Tzu Dow, first year:

REFERENCE: Wen Tsiang Tung Kao.

Edict says: " Many people have moved and transferred their places, and *many fields have been left muddy and weedy.* Although the government has tried to induce and call them back, the wandering have not returned. Thus the officers ought to make clear to the people the government emphasis on farming, and show the sympathy of the government by tax exemption. All the *unoccupied fields in different states and districts ought to be opened free to people for planting as*

their permanent properties. Besides they shall be given tax exemption for three years. After three years to pay only 50 per cent of their tax quota.

REFERENCE: Yu Hai, Jade Sea.

There were many unoccupied fields in Kiang Cheh (Kiangsu and Chehkiang) so the officers were ordered to record mows and equalize taxes in these districts. For every year 30 per cent was reduced on the taxes, and this was to be permanent. Also volunteers were called to cultivate and plant fields, and they were exempted from taxes for three years. After three years, they were to pay one-third the original amount.

Waste fields at Shun Chow (Hupeh) amounted to 408 chuans.

REFERENCE: Wen Tsiang Tung Kao.

Cultivated fields (whole country ?) amounted to 3,125,151 chuans.

§ 4. *Emperor Jen or Chen Chung (third emperor), 998-1022 A. D.*

REFERENCE: Sung Book.

An order was issued to encourage farmers.

The wandering and lazy were naturalized (in the places where found) to do government services.

Strong persons at Hopeh (north of Yellow River) were sent back to do farming.

Forms of foot-power plows were distributed among the different states.

Farmers in the interior were supplied free with oxen from the pasture sections of the north.

Hunters were not allowed to invade and occupy the fields of the farmers.

The emperor visited south of the City Wall (capital) to inspect the harvest of wheat and the planting of rice seed.

REFERENCES: Sung Book; also Ku Kin Tsi Pin Liu.

Kiang Wei (region of Kiang and Wei Rivers) and the Two

Chehs suffered from drought. *Even in the wet fields there were no harvests.* Officers were sent to Fukien to obtain 30,000 Hu (loads) of the Jen Chen rice, for distribution to the three states (Kiang Wei and the two Chehs) as seed. High land (dry land) was chosen, for this rice is *drought rice.* Transportation officers were ordered to publish and proclaim the methods of planting this rice so as to make it known to the people.

The taxes on farming implements in the different states were exempted.

There was an oxen plague and taxes on oxen were exempted.

An edict was issued to lend wheat seeds to the people.

Distribution was made of foot-plows and oxen to Hopeh (north of the Yellow River—Chili, Honan, Shansi) due to their scarcity resulting from the invasion of the barbarians.

Court judges in all districts were also appointed as officers to encourage farmers. Their duty was to induce and collect the escaping and scattered people, to fund accurately the taxes and to encourage and take care of farmers.

Soon after, the four corners were peaceful, people were contented and satisfied, the population increased, and also the fields were opened every day.

REFERENCE: Sung Book, chapter on Food and Commodities.

500 chuans of land at Yen Chow and 600 chuans at Yu Chow (Honan) were newly opened and cultivated. The water of the Yu River (Honan) was conducted to irrigate the land at Yu Chow and as a result had a return of 23,000 loads.

REFERENCE: Yu Hai, Jade Sea.

Volunteers were called to plant on grass land at Shun Chow that was not suitable for horses (raising). Oxen, implements, houses, etc., were provided by the government.

The pond water at Pau Chow (Chili) was inspected for irrigation of the soldiers' farms.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Sen Wai Jen stopped the twelve branches of the An Kiang

stream and built up embankments 8,100 feet, with four gates on these embankments. It took nine years for him to complete the work, and the fields irrigated were 4,000 chuans.

Lan Chain built up the Sze Tang Pond and connected it with the rivers to irrigate fields. He sowed more than 500 loads of seed and also fixed the Tien Bau Pond (Tien Bau Pond must have originated in Tang Dynasty, as Tien Bau is the name of a reign of the Emperor Swan Chung) to irrigate fields, and more than one thousand loads of seed were sown.

REFERENCE: Sung Book, chapter on Food and Commodities.

Reign Tsing Der, fourth year:

Doors = 7,200,000; fields = 1,860,000 chuans.

(Thus for every four doors there was only one chuan. This shows there must have been many hidden fields.)

The enclosing of grass land at the capital was prohibited, and people were allowed to plant and raise animals there.

REFERENCE: Wen Tsiang Tung Kao.

Reign Tien Si, fifth year:

Cultivated fields = 5,247,584 chuans.

§ 5. *Emperor Ren Chung (fourth emperor), 1023-1063 A. D.*

REFERENCES: Northern Sung History, chapter on Food and Commodities; also Wen Tsing Tung Kao.

Since the reign Tsing Te, of Chen Chung (third emperor) the empire within the four seas has been very peaceful, and the people contented and happy. Consequently the population was much multiplied and more land was cultivated gradually from day to day (more waste land cultivated).

When Ren Chung (considered by Chinese historians as golden age of Sung) first came to the throne, he led a very economical life and was very kind to the people. He issued an edict to limit land holdings as follows: Officers from ministers down, not more than 30 chuan or 3,000 mows; and military officers, not more than 1,500 mows. But soon after, he

discovered that the *limitation policy* was *very inconvenient*, and so gave up the policy.

Reign Tsing Yu.

REFERENCE: Northern Sung History, chapter on Kuo-Yi.

Kuo-Yi, the chief justice of the imperial court, was appointed to use the system of "square fields"[1] of 1000 pu square to remeasure the fields of the people so as to equalize the taxation (some people were owning land without paying taxes while others were paying more taxes than necessary). But the scheme was soon dropped.

REFERENCE: Sung Book, chapter on Food and Commodities.

The emperor heard that in the universe, there were still many waste fields, and that people seldom stayed in one place permanently. Sometimes they even left their fields entirely and wandered around to become leisure persons. Hence *an edict* was issued to the effect *that fields which had been deserted for more than ten years will be free for any one to cultivate.* After cultivation for three years, a tax of half the original amount will be levied. Wandering people who are willing to go back to their original states are to enjoy the same privileges.

REFERENCES: Ku Kin Tsi Pin Liu; also Sung Book, chapter on Food and Commodities.

Soon after (after the above reference) an edict was issued wherein the wandering were urged to return to their original occupations *within one hundred days. They were to be exempted from taxes for five years*, after which time, taxes were to be eighty per cent of the original. If *after one hundred days* the original owners did not return, *anyone else might cultivate* the fields.

[1] Instead of measuring land by mows, they tried to measure it by adopting a new system of square fields. It is very interesting to notice that the system was begun in the reign of Emperor Ren Chung, the so-called golden age of the Sung Dynasty, and that it was the system which caused a great deal of disturbance in Sung Dynasty. It was brought up and dropped many times after the time of Ren Chung, and the confusion lasted until the end of Northern Sung Dynasty.

There is constant emphasis in edicts on the importance of collecting the wandering and escaping; and of permitting any persons to open new fields. The guilty were pardoned if they were willing to settle on new fields.

"After sometime the population increased, and more and more new fields were opened."

REFERENCE: Sung Book, chapter on Food and Commodities.

Don Sau Lien says: "After the universe had been peaceful for some time, the rich and influential people occupied land without limit. Gobbling up and false occupation became a regular custom, and it was impossible to prevent it even with heavy punishment."

Edict: People were called as volunteers to work on waste land, and the district officers were ordered not to drive or disturb them, so as not to injure the farm works.

Seed was brought to be given to the poor at Hopeh (north of the Yellow River).

All the states were also ordered to lend seed to the people.

REFERENCE: Ku Kin Tsi Pin Liu.

Water was conducted to irrigate several ten thousand chuans of fields and consequently poor and exhausted fields were changed to rich and fertile soils.

At this time the cultivated fields in the universe amounted to 1,860,000 chuans. The population was 7,220,000 doors. Thus there were four doors to each chuan of fields. Hence we know there must have been many hidden fields at this time.

REFERENCE: Sung Book, chapter on Food and Commodities.

The official fields in Shun Chow (Hupeh) and Tang Chow (Honan ?) were abolished as the grain production was not enough to cover expenses. Fields were given instead to the poor, who were to pay one-half regular taxes for each chuan. Cultivated fields amounted to 2,280,000 chuans.

For the first time, some people stole lakes, and made fields out of them as their private properties. However the punishment for such action was severe.

REFERENCE: Sung Book, chapter on the Emperor.

Reign Tsing Yu, second year:

Edict: All district officers who are able to lead the people in establishing the benefit of water works and to open the waste fields are to be rewarded according to their merit.

REFERENCE: Sung Book, chapter on Food and Commodities.

During the reign Ming Dow (the reign before Tsing Yu) there was a famine. The government wished to relieve all the hungry; but such a policy would make the army provisions insufficient. Therefore the people had to suffer wandering and moving. . . . Besides, the "eating-up" families always occupied large tracts of fields; while the poor and middle class families occupied very small amounts. . . . Whenever there was flood or drought, the people had to suffer wandering away and deserting their homes, or die from starvation . . . all these filling the roads. . . . If the government should move them to other places for securing food, then the people all over the universe would have to suffer in the same way (the places of plenty losing their supply because of the hungry coming there). More than half of those (wandering) died from starvation.

REFERENCE: Yu Hai, Jade Sea.

Special officers were appointed (in charge of transportation) to look after good and bad years of the six divisions so as to carry out the method of Pin Ti (equalization of the price of grain).

REFERENCE: Literature Series.

Petition of Foo Pi Tsi for permission to distribute and give fields to the wandering people of Hopeh (Shansi, Chili, Northern Honan) who had come to the states of Hsu, Yu, Tang, and Ten (Honan) in order to hunt for food in harvest places.

Foo Pi Tsi's message for the distribution of grain:

"Owing to flood in Hopeh, the people lost their occupation. They crowded together to cross the Yellow River to go south;

and came to stay in the cities and counties in the five states of Tsing, Tsi, Wai, Den, and Loy of King Tung Division (Shantung) in order to secure food in harvest places. Such people are very numerous."

The Petition of Au Yang Show (writer and scholar) for discussion about relief and the saving of the hungry in the Kiang Wai Region (Yangtze) and along the Wai River (Kiangsu, Anhwei, etc.):

"South of Kiang Wai there was great drought in the spring. In some places even the wells and springs were dried up; oxen and other animals died from thirst, and no chickens or dogs were left. As a result, all the nine kinds of farms (means all kinds) have lost their occupation and the people are all complaining of hardship."

Another similar petition (by the same author):

"In Shensi many hungry people have wandered away and deserted their homes, especially in Tung Hwa and Ho Chung (Shensi). Quite often there are many babies left on the roads."

A petition for regulations for the relief of sufferers, etc., by Liu Chang:

"Even parents, sons and brothers cannot protect one another. And all the widows, widowers, orphans, and single persons, cannot support themselves. All the strong have wandered and moved around; and the weak have died. The reason why conditions are so bad is because of flood and drought and the reasons why there are so many floods and droughts is because the Yin and Yang are not in their harmonious conditions."

§ 6. *Emperor Yin Chung (fifth emperor), 1064-1067 A. D.*

REFERENCE: Northern Sung Book.

In the region of Tang Teng, west of the capital, there were still many waste fields, and *about eighty to ninety per cent of* the fields had grown to weeds.

In the third year of the reign Tsi Ping there were 36,700

mows of Tan Tien (soldiers' fields) in Hopeh (north of the Yellow River—Chili, Shansi and Honan) and the annual harvest from these fields was 35,468 loads (about one load of grain per mow, according to Sung scale).

Chao San Kwan fixed ditches and edges for ponds, and induced people to do farm work by giving them oxen, plows, seeds and provisions. As a result, the wandering people who came back from Wai Nam and Hopeh amounted to 2000 doors. He also conducted water to irrigate fields, amounting to more than several ten thousand, and consequently changed poor and exhausted land into fertile and rich soils.

During the first year of the reign Tsi Ping there was flood in different states, and the government relieved the people.

In the fourth year of the reign the government relieved the wandering in Hopeh and also relieved the districts and states which had suffered frost and drought.

§ 7. *Emperor Sun Chung* [1] (*sixth emperor*), *1068-1085 A. D.*

Reign Si Lin, fifth year:

REFERENCE: Northern Sung Book, chapter on Food and Commodities.

The system of square fields was adopted [2] to *equalize the land tax*. From east to west, and from north to south with 1000 pu in each direction gave one square, which was equivalent to 4,166.66 mows (for one square of 1,000,000 square pu. Thus it means 240 square pu equalled one mow at that time). According to the quality and the color, the land was classified into five classes for purposes of taxation.

[1] A period of radical economic changes in Chinese history. In 1069 Wong An Shih established the new system of farm loans, etc.

[2] Notice this was the second time the system of square fields was taken up; and that Sun Chung was the emperor, to whom Wong An Shih was the powerful prime minister. It was the time when Wong An Shih effected his famous economic reforms, such as farm loans, etc. Unfortunately the influence of a group of the Classical School led by Sze-Ma Kwong, that was bitterly opposed to the policy of Wong An Shih, was too great for him to overcome.

Same Reign, seventh year:

REFERENCE: Northern Sung Book, chapter on Sun Chung (emperor).

On account of drought, the system of "square fields" was suspended.

REFERENCE: Sin Li Wei Tung [1] (A general treatise of mental science by Chen Tzu, one of the famous two brothers who were among the strong classicists in opposition to the policy of Wong An Shih).

Someone asked, "Can we adopt the Tsing Tien today?"

Chen Tzu, "If it could be adopted in ancient times, why can we not adopt it at present."

Questioner, "But at present the population is greater, while the land is more scarce than in ancient times."

Chen Tzu, "No, I do not think so. For instance, the harvest of the soil is just like the grass and wood on the mountain. The mountain will grow grass and wood just as fast as men can use them. The productive power of the universe is always in proportion. How can it be true that the population will be greater than the land supply?"

Questioner, "One hundred mows of the ancient (Chow) are only equivalent to forty-one [2] present mows. So if we should consider the productive power in that amount of land at the present time (41 mows) how can we expect it to be sufficient to supply food for nine [3] persons?"

[1] This reference is interesting as showing the character of the opposition to the practical economic school as led by Wong An Shih. The reasoning of Chen Tzu is at once seen to be very unsound; yet unfortunately many such persons held strong sway during the Sung Dynasty and also at later times.

[2] This did not take into consideration the other differences of the scales besides the 240 pu instead of 100 pu for one mow. If the whole difference of the Sung scale was taken into consideration it would give only 24.5 mows instead of 41. *Cf.* Part III, Chapter on Weights and Measures.

[3] 100 mows Chow, according to the Li Ki (Record of Rites), was supposed to be sufficient to feed nine persons if the farmer was of the superior class.

Chen Tzu, "Although one hundred mows (Chow scale) are not sufficient to feed nine persons, yet if we take the whole empire into consideration, it will be all right. When we say a family of nine persons we mean most of them are either very young or very old people, because those persons whose ages are about 16 years will receive extra land from the government. Therefore there will be sufficient (i. e., 100 Chow mows sufficient to support nine very old or young persons in Sung Dynasty). And even assuming that they are not sufficient, we shall have charity works either conducted by the government or by the local community. So there will always be sufficient after all."

REFERENCE: Ku Kin Tsi Pin Liu.

Emperor Sun Chung changed the old methods of aid to farmers (control of price and sale of farm products, etc.) to the new method of loan (farm loan) system (lending money to farmers at interest).

He paid attention to farms, irrigation and water works, farm loans, taxation in kind, police protection for farms, exemptions from service, selling and protection of horses, surveying of land and fields. All these things were adopted successively. This is called the new system.

REFERENCES: Sung Book, chapter on Food and Commodities; also Ku Kin Tsi Pin Liu.

Chui Sheh was ordered to repair and fix again the waterways so as to irrigate fields aggregating 6,000 chuans (in Shun Chow, Hupeh).

Those who increase the planting of mulberry trees will not be subject to additional taxes.

Chao San Kwan was rewarded with higher rank for his merit in opening new fields and waterways. This was done for encouragement to the people.

Edict: Government aid of money and grains from the Normally Constant Granary is to be given to those who give

their services to the public works, as opening of waste fields and the restoring of water works.

Wandering people in the states southwest of the capital who buy oxen for farming are to be exempted from taxes.

REFERENCE: Sung Book, chapter on the Emperor.

All officers acquainted with the methods of soil adaptation and cultivation, and also with ponds, reservoirs, ditches, embankments, banks, shores, etc. (their advantages and disadvantages) were allowed to report themselves.

REFERENCE: Wen Tsiang Tung Kao.

Report of Wong Lin: On the west side of the reservoirs at Pau Chow (Chili) an embankment may be constructed to plant wood. It runs a distance of 19 lis. Within the embankment water may be conducted and rice crops planted. At places not reached by water, the system of square fields may be used.

REFERENCE: Sung Book, chapter on Food and Commodities.

Report of Wong Shaw: From the city of Wei Yuan to Chen Ki of Chin Chow (Shensi) is about six hundred lis along the river bank and must have at least 10,000 chuans of good fields for cultivation. Farming on 1000 chuans alone of this land will give 300,000 loads every year. Therefore I request the government to care for this land.

Many unoccupied fields were not cultivated in Shensi. So the district officers made a survey and discovered the hidden land to be more than 15,000 chuans. Volunteers, both Chinese and Barbarian, were called to cultivate and do soldier farming.

REFERENCE: Yu Hai, Jade Sea.

The wet fields at Pau Chow (Chili) were established.

REFERENCE: Wen Tsiang Tung Kao.

Inventions of water wheels, rollers, thrashers, etc., which used water power and interfered with the work of irrigation on the people's fields were considered violations of the law.

The Mu Lan Pond was established in Fukien to connect the

waterways, and the current was utilized for the irrigation of more than ten thousand chuans of fields of the people. As a result 27,000 loads of army supplies were provided each year.

REFERENCE: Sung Book, chapter on Food and Commodities.

An edict was issued to open and establish water works for the benefit of "abolished fields." In cases where the people's strength is unable to supply all the labor, aid will be loaned from the Normally Constant Granary in money and grain.

REFERENCE: Wen Tsiang Tung Kao.

Total cultivated fields 4,616,556 chuans, of which 4,553,163 chuans were people's fields and 63,393 chuans official fields.

REFERENCE: Sung Book, chapter on Food and Commodities.

15 states from Ta Ming to Chen Lin (Chili) were exposed because of a change in the course of the Yellow River. The area affected amounted to 7000 chuans. Officials requested the emperor to call volunteers for these fields, and he accepted the advice.

REFERENCE: Wen Tsiang Tung Kao.

An edict was issued *postponing* the system of Square Fields (Fong Tien) at Kingtung (east of capital—Shantung) *until good and plentiful years* (farmers needed every minute and inch of space for planting. System of changing of measurement, etc., meant necessary suspension of some work).

REFERENCE: Sung Book, chapter on Food and Commodities.

An edict says, "During the *spring season, when people should be busy on the farm, many are found* carrying their old and young and *deserting their farms and houses.* Every day they are wandering and moving on the roads, toiling always, never peacefully settled. . . ."

At this time Wong An Shih used money and grains both of the Normally Constant Granary and Great Charity Granary to establish the system of green sprouts.

Conditions in the South as described by Sze-Ma Kwong:

"People at the south of Kiang Wai are short of money, so we call it a cash famine; but the soils in these places are adapted to rice, and the crop produced is more than the people can eat."

The system of "Green Sprout Money" (Farm Loans) was as follows:

"The people were ordered to make an estimate of their need of help in wheat and millet beforehand; and they were lent money by the government. When the crops were harvested, the loans were to be returned to the government with interest" (20 per cent ?). This system was called "Green Sprout Money."

Hen Chi (a statesman) makes the following observations:

"The *purpose of* issuing *Green Sprout Money* is *to benefit the small* people, in order to *prevent the 'eating-up' persons from taking* the *opportunity of getting 100 per cent interest from the poor*. . . . Although the regulations prohibit all officers from forcing people to take loans, yet the ignorant never realize the serious consequences. They only know it is very easy to get the loan; but never realize the difficulty of returning it. . . . Now the government *gives much of the loan to the 'eating up' people*, levying 30 per cent interest."

Wong An Shih's answer to complaints:

"The present method of Green Sprout Money is to discourage the 'eating-up' people and to help the poor and weak. The whole idea is to appoint officers to administer the wealth of the state; but not to aid personal selfishness. So how can people say that all these officers are simply for getting money."

Hen Chi's observations on taxes:

"At present the land tax has already been very heavy, and it is already a system different from the tithe (10 per cent) system of the Chow dynasty as recorded in the Chow Li. Besides the regular land taxes, there are also other miscellaneous taxes, such as taxes on farming implements, salt, yeast, shoes, etc., altogether more than ten items."

The Green Sprout Money was issued twice a year. There

was first the summer loan (loan to be returned in summer) and second, the autumn loan, which was issued in the fifth month.

Observations by Su Tze (a scholar) on the Green Sprout Money System in Practice:

"The purpose of Green Sprout Money is to make loans to the people at twenty per cent interest, and it was originally intended to save the people, and not to secure benefit for the government. *But since the time of issuing* and collecting the loan *the officers in charge are corrupt,* and wish to secure personal benefit. Even though there are regulations, the corruption of the officers cannot be prevented. *Moreover, when the money goes into* the peoples' hands, *even good people sometimes spend it very extravagantly.* When the time of return approaches, even the rich have to be behind the time limit."

Observations by Sze-Ma Kwong:

"At present the government gives out money loans to the people at interest. The rich are unwilling to take the loans. However the *officers in charge of these loans always want to issue more loans in order to get merit, and consequently* they *want to distribute the loans to the people and force them to take them.* At the same time these officers are afraid that the debtors may escape from the loans, so they *make the rich and poor be security for each other. When the poor are incapable of paying back the debt, they naturally have to scatter all around to the four corners* (wander away). On the other hand the *rich cannot* leave their *native homes* (value of property, etc.) so they have been *forced to pay the debts for several families* (the poor families which escaped). This has been carried on from spring to autumn increasing every day. Consequently all the poor people have deserted their homes and the rich are also becoming poor. If this is to be continued ten years longer there will be no more people left in their homes."

REFERENCE: Sung Book, chapter on Chen Shar.

There has been *drought for a long time* so that *people have no desire to live.* In the *northeast of China,* whenever there

was a big storm the wandering people all carried their young and old and stopped on the roads. They *were lean and suffering, and wore no clothes which were not torn.* The people in *Bin Chen (Chili) even bought the chaff of wheat and straw of hemp* to mix with rice, *to make rice cakes for food. Sometimes they even used nut seeds and the roots of grasses for food.* At times even *though in chains* (under punishment) they *carried tiles and wood for sale in order to secure money for paying government debts.*

Chen Shar drew pictures of these conditions; and when the emperor saw them, he abolished the new system (Wong An Shih's). When this was accomplished, the people were very happy and congratulated each other on the good news. *But soon afterward, the new systems were restored as before.*

Sze-Ma Kwong (the opponent of Wong An Shih), Report to the Emperor to Save the People from Famine:

In Wai Nan (Anhwei) and the Two Chehs, there is flood disaster this year and many are short of food. Quite often there are those who with arms and weapons secretly deal in salt (which was a government monopoly) in order to save themselves from starvation, living from morning to evening. Their conditions are so desperate that some of them even fight with the government troops, injuring and killing one another.

Sze-Ma Kwong, Report to the Emperor about Land Taxes:

I noticed that the *states of Chen,* Hsu, Yin, Pau, etc. (Honan), have *only suffered flood* disaster *once since last autumn, yet the people have to eat each* other even among relatives and dead bodies are all over the fields. This is not the fault of the officers of today, but of those of yesterday.

Sze-Ma Kwong, Report about Storage and Savings:

In this year, along the border of the county Kai Fung (Honan) there has *been disaster of excessive rain in* the states of Nanking (Kiangsu), Sauh, Pau, Chen, Tsai (Honan), Chao, Poo, Tsi, Shang (Shantung), etc., and all the cultivated fields have been overflooded. The lean and weak have wandered away to other places and have died from starvation, and

been buried in the ditches and trenches; while the young and strong have gone forth to become thieves and robbers—the officers being unable to prevent it. The *government is willing to open the granary to relieve the* people, *but it finds that the government grains are not even sufficient to supply the army provisions; how can it relieve the people?* The government has *thought to take* something *from the families with stores* and savings, *but* is afraid *that before the poor can be relieved, the rich will also be short of food themselves.* Besides this policy would discourage people from making stores and savings in the future. If unfortunately there is another disastrous year, where would the government secure the next supply? This is the reason why, although the government feels greatly terrified and discouraged, yet it can only sit down to watch for what happens—having no way to remedy the situation.

Fan Chen, Report to the Emperor (same emperor ?) to Establish Regulations in Regard to Wandering People:

At present there is only one (grain) crop which yields no harvest yet the people have to wander away in such a bad condition. If all the nine kinds of crop have no harvest, how would the government remedy the situation?

Bau Chen (a good officer), Report to the Emperor Sun Chung to Relieve and Save the Hungry in Liang Wai (Kiangsu, Anhwei):

The six divisions of Kiangwai have had drought every year continuously, and the people find it very hard to get food. Everywhere they are wandering and deserting.

Bau Chen, Report to Emperor:

In the states of Wai Nam (Anhwei) Kiang Cheh (Kiangsu and Chehkiang), King Hu (Hupeh, Hunan), etc., the people *have been suffering poor harvest for several years* recently.

Han Wai (Emperor Sun Chung ?), Message Given on Sending out Officers to Save and Relieve the Hungry:

Along the border of Kai Fung county (capital of Sung) all the states such as Bin, Chen, Tsai, Hsu, Yin, etc., have suffered poor harvests last year and the people are still more ex-

hausted this spring. Although the government has issued grain from the granary, and transported the same to relieve them, yet those who have died from starvation are innumerable. Some are giving up their young, and weeping all over the roads. Even among relatives, they eat one another. Dead bodies and remains are lying everywhere exposed.

In this spring, numerous persons in the region of the capital (Honan) and in the state and counties of Kingsi have died from starvation.

Chen Hai, Report to Save and Relieve the Hungry:

Since last autumn, the people in Hopeh have been carrying their old and young and wandering to the south. The roads are crowded, even today with the same conditions. I do not know how many ten thousand doors have wandered, and this is not a matter of little concern. . . . If we think these conditions are simply due to famine years, then we must know that *throughout the last hundred years the alternation of good or bad harvests has been the ordinary situation* (very common). *But why is it that in the previous years the people were still able to satisfy themselves and stay in their own homes during the disastrous years, while today suddenly they have to leave their native places and wander away?*

Some say the reason why conditions are so bad in Hopeh is because the population has increased very much, so that they cannot support themselves any longer. . . . This argument is incorrect because how can the population increase from 10 to 20 mouths in one family in one place in one day? Otherwise why is it that they were able to support themselves yesterday (not along ago) but are unable to support themselves today?

Su Sze, Report to the Emperor Discussing Robberies in Hopeh and Kingtung:

". . . . Since your majesty succeeded to the throne, the people in the north have continued to wander and move away."

REFERENCE: Sung Book, chapter on the Emperor.

Wong An Shih established the system of "normally constant giving and collecting" (the government collected extra

taxes during good years and gave out funds to the people in bad years).

The government also adopted the system of a stationary granary.

The government made up the capital fund for the Normally Constant Granary.

Wong An Shih at this time used money and grain of both the Normally Constant Granary and the Great Charity Granary to establish the system of Green Sprouts.

The government established the Ho Ti Chang (granary for the equalization of grain).

The government adopted the methods Tso Ti and Pu Ti (plans for equalizing grain by methods of government buying).

The government adopted the system of Tu Ti (exchange or buying grain).

The Charity Granary was abolished and Green Sprout Money distributed.

REFERENCE: Sung Book, chapter on Food and Commodities.

Records of annual collection and distribution of grain (Yuan Fung Reign):

	Collected	*Distributed*
Third year	15,000,422	13,186,114
Fourth year	11,978,834	13,837,736

§ 8. *Emperor Jer Chung (seventh emperor), 1086-1100 A. D.*

REFERENCE: Northern Sung Book, chapter on the Emperor.

When Jer Chung came to the throne, he abolished the system of "Square Fields," as he was afraid that it might have disturbed the people.

REFERENCE: Sung Book, chapter on Food and Commodities (same year as above).

By this time the total amount of land which had already been "squared" was 248,434,900 mows (2,484,349 chuans).

REFERENCE: Ku Kin Tsi Pin Liu.

Yu-Wen Tsai-chung said that disorders on the border were

increasing. In Shantung and Hopeh (Honan and Shansi) a great many thieves and robbers have sprung up. Thus the income from taxation is limited, and all the branches (additional taxes) were many in kind and all had to come from the people. In Shensi many of the high families left their properties and went to stay at the capital. Many of the rich of Ho Tung (Shansi) have left their properties to go to Chuan Sau (Szechuen). At Hopeh, people have to get clothing from other places and have stopped their silk worms and spinning. At Shantung there were often floods and loss of farming seasons.

REFERENCE: Wen Tsiang Tung Kao.

The emperor visited the imperial rice pond to inspect the transplanting of rice shoots.

Sze-Ma Kwong (noted scholar and conservative statesman of the time) comments: "the sons and younger brothers of the farmers who have travelled to 'markets and wells' enjoy delicate food and beautiful raiment. They witness prosperity every day and are unwilling to go back to their farms any more. Consequently, worldly traditions and customs become indecent and frivolous, all despising farmers. It is really a pitiful situation."

In the district of Hsing Ping some fields of the people had been forced into pasture by the government. Hence the edict to restore these fields if the people should claim them.

REFERENCE: Sung Book, chapter on Food and Commodities.

Report of Yu Hwei Tsing, officer of Tai Yuan (Shansi), says that *planting of waste land gives harvest which does not pay for expenditures.*

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Improvements were made by the district officer of Chang Lao (Hupeh ?) for turning the waterways to the Yangtze.

Su Sze, Report to the Emperor about disaster and injury in Chehsi (Chehkiang).

"Last year the price of rice in Hongchow was eighty to ninety (cash) per do (one-tenth load)."

REFERENCE: Sung Book, chapter on the Emperor.

The Yellow River broke from its banks at Ta Ming (Chili) causing many fields of the people to be spoiled and making it difficult for many persons to secure provisions. So the government issued an edict for their relief.

The Normally Constant Granary was restored and the System of Green Sprout Money was abolished. Su Sze, a scholar, says: "in the last twenty years the people have even sold out their fields and houses and given up wives and children to drown themselves because they had put themselves so heavily in debt, due to the Green Sprout System. Such cases are innumerable."

Reign Yuan Yu.

Second year: The government relieved the people in Hopeh who had suffered disasters. Wheat was in good harvest, so an edict was issued ordering the different provinces to buy plenty of grain (to store for emergency).

Third year: The Kwong Hwai Chang (Favor-extending Granary) was restored.

An edict was issued to give grain to the hungry and wandering according to their needs.

Sixth year: There were flood disasters in the Two Cheh and the government relieved the people.

Eighth year: The government relieved the people in the capital (Honan) from famine. It also gave money and grain to relieve the wandering, altogether using one hundred thousand in money and grain.

REFERENCE: Sung Book, chapter on Food and Commodities.

Reign Sou Sun.

First year: An edict was issued ordering the states of Chen, Tin and Yin in Hopeh to buy grains for seven years.

REFERENCE: Sung Book, chapter on the Emperor.

The government relieved famine in Hopeh (Honan, Shansi, Chili). It relieved the wandering in the different divisions (provinces) and restored charity granaries in all parts of China with the exception of Kwongnam, Kwongtung and Kwongsi divisions.

An extra land tax of five per cent was levied for the purpose of famine relief.

There was an edict issued to relieve the wandering in Kingtung (Honan) and Hopeh (Honan, Shansi, Chili). Seeds of rice and wheat were loaned and tax exemption for the year was given. An edict was issued for relief of the wandering in Kintung, Kingsi and Hopeh.

REFERENCE: Sung Book, chapter on Food and Commodities.

Emperor Jer Chung restored all Favor-extending Granaries but soon afterwards abolished them when Chang Shen was in power. The fields of these granaries were sold out as in the case of the beginning of Emperor Sun Chung. *Money and grain of the Normally Constant Granary were insufficient to carry out the relief work* and when the stores of the charity granaries at certain places were insufficient, other divisions were called to help. *Consequently relief work at this time was simply nominal as the government had no savings in the granaries to do the work.*

§ 9. *Emperor Hwai Chung*[1] *(eighth emperor, next to last of Northern Sung), 1101-1125 A. D.*

REFERENCE: Northern Sung Book, chapters on the Emperor, on Food and Commodities, etc.

Reign Tsung Lin.

Third year: Tsai King, the prime minister (a strong fol-

[1] Emperor Hwai Chung and also the following emperor were captured by the Northern Kin Barbarians, and never returned. End of Northern Sung.

lower of Wong An Shih) proposed to restore the system of "square fields" which was adopted by Emperor Sun Chung.

Fifth year: The system of "square fields" was temporarily suspended.

Reign Ta Kwong.

First year: The system of "square fields" was adopted again.

Fourth year: An edict was issued to suspend the system of "square fields," and the people were ordered to pay their land tax according to the old tax regulations.

Reign Chen Ho.

Second year: The system of "square fields" was adopted again.

Third year: An edict was issued to further classify each of the ten classes of land into three sub-classes, superior, medium and inferior; and the tax rate was regulated accordingly. For instance, ten mows of the superior sub-class of the tenth class was considered equal to one mow of the superior of the first class land, fifteen mows of the medium of the tenth class was equal to one mow of the superior of the first class; while twenty mows of the inferior of the tenth class was equal to the superior of the first class.[1]

Reign Hsian Ho.

Second year: The system of "square fields" was entirely abolished.

Wong Kwun was promoted because he opened ten thousand chuans of waste land. Any officer able to teach people to plant mulberry was to be rewarded.

The hidden fields discovered in Kiangtung (east of the Kiang-Kiangsu) amounted to 160 chuans 16 mows; those at the Two Cheh (Chehkiang) were 456 chuans.

REFERENCE: Southern Sung Book.

For the first time, lakes were officially abolished and con-

[1] This shows that some of the soil must have been in a very poor condition, taking 20 mows as equal to one.

verted into fields. Formerly persons only did this privately under fear of heavy punishment.[1]

REFERENCE: Wen Tsiang Tung 'Kao.

In giving land to the people, the fertility of the soil was considered. Only land not suitable for cultivation of any kind was allowed to be distributed as pasture land. The idea was to *utilize the soil benefit to the full extent.*

REFERENCE: Sung Book.

First year: Money was taken from the emperor's private treasury and from the normally constant granaries in the different divisions to provide savings and storage against the northern barbarians on the border of Hopeh.

Same, chapter on Food and Commodities.

The government increased the price at which it purchased grain from the people. (This was not the market price but usually a medium price arbitrarily set.) This was done to induce the people to sell their grain that the government might accumulate its storage. "If we wish that the people should not wander away, the best way is to save and accumulate as much grain as possible."

Fourth year: There was flood in the states of Su Hu Show (Kiangsu) and the government relieved with millet those who were short of food.

Fifth year: The government established normally constant granaries in Kiang, Hu, Wai, Cheh (Kiangsu, Anhwei, Kiangsi, Hupeh, Hunan, Chehkiang, etc.).

An edict was issued ordering Shensi to do extensive buying of grain in order to equalize the price of different commodities (to control the cost of living by equalizing food prices).

Same, chapter on the Emperor.

[1] There is complaint in the Southern Sung Book that, due to this practise, the Two Chehs suffered flood and drought every year from this time on.

Reign Ta Kwon.

There was flood in King Tung (Honan) due to the overflowing of the Yellow River; and there was drought in Chin Fung (Shensi). Also flood and drought occurred in various divisions, and the government conducted relief and loaned help to the people. Savings in the charity granaries were increased to prepare for famine. An edict was issued to the district officers to relieve the wandering at their places.

Same, chapter on Food and Commodities.

Reign Chen Ho.

The government adopted *in Shensi* the policy of Chuen Ti and Twain Ti, whereby people are "urged" to buy and sell grain to the government for emergency preparation and for equalizing exchange, i. e., the government bought grains from the people to equalize the price of commodities.

REFERENCE: General Record of Kiangnam.

The year was good, so the government extended the method of Twain Ti.

Kiangnam (Kiangsi, Anhwei, Kiangsu) suffered from disaster and injuries; so an edict was issued for relief.

REFERENCE: Sung Book, chapter on the Emperor.

The government exchanged the method of Ho Ti (Free Exchange, i. e., voluntary on the part of the people) for the old method of Twain Ti.

Reign Tsung Ho.

An edict was issued ordering the officers in Kiang Wai (Kiangsu, Anhwei, Kiangsi) and King Cheh (Hupeh and Chehkiang) and Ming Kwong (Fukien, Kwongtung, Kwongsi) to induce the wandering people to return to their homes.

Reign Shen Ho.

An edict was issued ordering the different districts to give provisions to the wandering people of Wai Nam (Anhwei, Kiangsu) at the places where they were.

Fifth year: There was drought in Chin Fung (Shensi); and famine in Hopeh (Honan, Shansi, and Chili), Ho Tung (Honan) and Wai Nam. Envoys were sent out to relieve the people.

Sixth year: The government relieved famine in the different divisions.

III. *Southern Sung, 1127-1276 A. D. (occupied only the southern part of China).*

§ 1. *Kao Chung (first emperor), 1127-1162 A. D.*

REFERENCE: Southern Sung History, chapter on Food and Commodities.

Reign Sou-Sin, 29th year:

In the two Chehs (Chehkiang) there were 42,000 mows of official land, which had an annual harvest of 4800 loads of rice and wheat (about one-tenth load per mow); and there were also 926,000 mows of Yin Tien (camp fields for soldiers) which had an annual harvest of 167,000 loads of rice, wheat and beans (about .17 load per mow).

An edict was issued to sell these official and camp fields. Chang Sen Tso and Chen Fan, district officers of Chehkiang, were punished and dismissed because they were too slow in selling the land, while another district officer was rewarded and promoted because he sold the largest amount of "official land."

REFERENCE: Wen Tsiang Tung Kao.

"In the region of Kiang [1] and Kwong [2] there is scarcely any rice left on the market, and it is also very difficult to obtain any *cash* or *goods*. As a result, *one mow* of *land* in these places is not *worth* more than 100 strings of *cash*.[3] So if we wish to get as much as we can out of the people (by forcing

[1] Yangtze Kiang.

[2] Kwongtung and Kwongsi.

[3] Very cheap price.

them to buy official land), how can they possibly meet the requirements of the government on time? If the government is not in a position to repudiate the former edict (already in force), we (officials) wish that the government might extend the time limit one year and let the people volunteer of their own accord instead of compelling them to do so."

The emperor took this advice.

The officers also reported to the emperor [the same year] as follows:

"In the last two years, the department of agriculture has been wearied with official dispatches, while the energy of the district officers has been exhausted in selling official land to the people. At the beginning, the time limit was extended to one season (three months); then to one year. But the result is that only about thirty per cent of the official land has been sold, and only twenty per cent of the value has actually been paid in by the buyers (people) to the government.

"What really happened is this: The people who bought such official land are all big families (rich and influential). At the beginning when the price for these lands was fixed, the land of good quality was fixed at low prices. So when sales took place, these rich people always got possession of the bargains first, because they made the first bids. This is the land which has already been disposed of. As to the land of inferior grade, no one makes any bids for it. Besides, the price for this land is not compatible with the quality. This is the land that we have left and nobody wants to buy to-day. So the best plan is to let the original tenants (those who were working on these official lands) keep these lands and levy a land tax on them. Then the government will still have an income of several hundred thousand loads of grain in one year."

The emperor acted on this advice.

REFERENCES: Southern Sung Book; also Ku Kin Tsi Pin Liu.

District officers were ordered to induce farmers to return to their original occupations by lending financial help and by giving exemption from back dues and from taxes on oxen.

The Petition of Lin Suen for an Imitation of 'Tsing Tien:—

One adult was to hold fifty mows. Those holding more were not allowed to sell them, and those who owned no land but simply wandered around or worked in branch occupations were to be forced to be farmers.

Reward of promotion in rank was given to officers who were able to induce people to open new fields.

Those owning no land but willing to accept unoccupied fields were given waste land to cultivate.

People in all states who came back home were ordered to cultivate waste land.

There was exemption of taxes on oxen and farm implements.

Oxen were bought to lend to farmers at Wai Tung and Wai Nam (south of the Wai River, Honan and Anhwei).

Disaster-stricken farming doors were loaned financial help for their spring cultivation.

Soldiers who had left the army and were willing to go back to farms were each assigned 100 mows of waste land at Kiang Wai (Anhwei and Kiangsu) and Hu Kwan (Hupeh and Hunan) and given tax exemption for ten years.

100,000 strings of cash were taken from the tea and salt tax at Wai Tung (Anhwei and Kiangsu) for the purpose of calling for volunteers to cultivate the fields.

REFERENCE: Sung Book, chapter on Food and Commodities.

Fields occupied by influential families were to be collected for redistribution.

The official farm (government) in the Two Cheh (Chehkiang) contained 42 thousand mows, and in one year yielded 48 thousand loads of rice, wheat, etc. (a little over one load per mow).

The camp fields (Yen Tien) contained 926 thousand mows, and their return in rice, wheat, different beans, etc., was 167 thousand loads (about one-tenth load per mow).

REFERENCE: Wen Tsiang Tung Kao.

Volunteers were called for to cultivate waste fields in Wai

Tung (Kiangsu). The population in Kiangtung and Si (Kiangsu, Kiangsi, Anhwei) and the Two Kwons (Kwongtung, Kwongsi) were very sparse and [the fields were] full of mu and white wei (weeds). Not even all fertile and rich fields were planted. Chehtung and Si (Chehkiang) were considered the most prosperous places but their production amounted to only a little over one million loads.

REFERENCE: Ku Kin Tsi Pin Liu.

Soon after there was an edict reducing taxes for abandoned fields in the different states at Kiangtung (east of the Yangtze-Kiangsu, Anhwei) for twenty years.

REFERENCE: Sung Book.

The lake fields in the district of Yu Yao and Shang Yu of Shaw Sin county were abolished to make lakes for the irrigation of fields.

Southeast of Pin Kiang County (Kiangsu) there were many fields of escaped doors connected with lakes, shores, banks, etc. Thus the returns lost (because these fields were left waste) every year were 43,000 loads.

The government induced people to conduct water and cultivate the fields.

Fields which could not be worked at once were exempted from taxes.

The tax levied on one mow of wet field was one do (one-tenth load) of hard rice. And the taxes on crops of dry fields were five sen (one sen equals one one-hundredth load) of each of the two crops, beans and wheat.

People in the Two Wais (Honan, Kiangsu, Anhwei) who had fled to escape military disasters were allowed to cultivate waste fields in the places to which they had now come.

People were urged to settle *on different kinds of fields*—such as those *confiscated by the government* on the extinction of doors, *sandy fields left by the Yangtze River* and *muddy fields due to the receding of the ocean.*

Volunteers were called to restore the Kwai Hu (Turtle

Pond) east of Tan Chow (Kiangsu or Chehkiang) so as to irrigate the fields.

Ponds and reservoirs in Wai Si (west of the Wai River, Honan, Anhwei) were ordered to be opened and repaired to irrigate the fields.

REFERENCE: Sung Book, chapter on Food and Commodities.

The government restored the old Ta Hu (Great Lake) (Kiangsu and Chehkiang?) for irrigation, and all fields received benefit.

REFERENCE: Sung Book, chapter on the Emperor.

Reign Chien Yen.

The government abolished the system of Green Sprout Money and Market Exchange using their funds to sell rice to the people at lowered prices. 100 thousand loads of rice were sold to the people in the states of Hong, Show, Shang and Hu (Kiangsu and Chehkiang) and in the county of Pin Kiang (Chehkiang).

The wandering in the northeast of China (Shansi, Honan, Shantung, etc.) were relieved.

The government excused all people from paying back their debts due to "Green Sprout Money."

Reign Sou Shin.

The government forbade any embargo on grain. Wandering people in Wai Nam (Anhwei and Kiangsu) and Kingtung and Kingsi (Honan) were relieved.

REFERENCE: Sung Book, chapter on Food and Commodities.

When the capital was moved south to Chehkiang at the beginning of the Southern Sung the people followed just as if they were going to market (in crowds). Whenever there was flood or drought the government opened the normally constant granary and charity granary either to give grain outright, to sell it at lowered prices, or to lend it to the people. And the government did it *in real earnest*. But the *government storage was limited* while the *work of relief had no end*. So t[illegible] gov-

ernment had to induce the rich with rewards and offers of official rank to come to its aid in doing relief work.

Same, chapter on the Emperor.

An edict was issued ordering the Two Chehs (Chehkiang) and Kiang Wai (Kiangsu and Anhwei) to retain, comfort and relieve the wandering people from the Northeast (their homes were now occupied by the Kins).

The government relieved famine in Fukien.

Third year: An edict was issued that those returning to the soil were to pay taxes and service according to the amount of waste land cultivated. Volunteers were called for to cultivate the waste fields in Kiangtung (Kiangsu and Anhwei) and Kiangsi, Hupeh, Chehsi (Chehkiang). These would be exempted from taxes for three years.

The government relieved famine and hunger in the different provinces.

§ 2. *Emperor Hsiao or Show Chung (second emperor), 1163-1189.*

REFERENCE: Southern Sung Book, chapter on Food and Commodities.

Reign Lun Sin, first year:

Chang San, the Minister of Labor, reported to the emperor as follows:—"The evils of Tan Tien (soldiers' fields) to-day in the region of King Shun (Hupeh) are these: as the government was not able to get people to cultivate these lands (Tan Tien) they were placed in the hands of the wandering people. And when there were not enough wandering people for the purpose, the ordinary people (farmers) were compelled to do the work. As a result, the people are compelled to give up their own land already under cultivation to come out and work on the official land which has been left uncultivated for some time ("ripe field" to come to "raw fields"). Some of the people had to come because they had two adults in the same family, many of them traveling a distance of hundreds of li. Consequently many children and aged have been left

without care and the whole empire is in a greatly disturbed condition."

Reign Chien Dow, second year:

Tseng Hwai, the assistant minister of the Department of Agriculture, reported to the emperor as follows: "In the province of Kiangsi there were 400,000 mows of Yin Tien (camp fields for soldiers), of which 190,000 mows were rented out (the rest remained idle). For this amount of land rented, 50,500 strings of cash were collected by the government as rentals. If we should sell these fields (instead of renting them) we would get 67,000 strings. . . ."

An edict was issued to appoint Tseng Hwai to sell these fields. If those tenants (who were then working on the land) should wish to buy them, they would be sold at twenty per cent reduction in price.

REFERENCE: Ta Show Yen Yi Poo, Supplement to the Extension or Exposition of the Great Learning.

Lin Shen [1] (a scholar) presented his book *Chen Pen* (*Fundamentals of Political Administration*), which says: "We ought to imitate the system of Tsing Tien and let one man receive *150 mows* of land.

REFERENCE: Wen Tsiang Tung Kao.

An edict was issued giving people five years to return to their fields, instead of taking them away immediately if they left.

"Of late, whenever the poor and inferior doors have fled and left their fields because of famine, the officers have been in the habit of taking over the land and fields of such people immediately, so that they could not possibly come back to their occupations. Hereafter the district officers must make clear to the people that the government will allow them a limit of five years in which to return to their homes. As soon as they return to their original occupations, the district officers must return their respective property to these persons immediately."

[1] Both Chu Hsi, 1130-1200 A. D., and Lu Tsu Chien, 1137-1181 A. D., were in favor of Lin Shen's idea because they were staunch followers of the Classical School.

The government relieved the poor in different divisions (states or provinces).

There was an edict issued ordering those people who were occupying fields of more than 10,000 mows, and who had not suffered flood disaster, to sell 2000 loads of their grain; and those occupying less than 10,000 mows to sell 1000 loads. This was for the relief of several 100,000 people who had wandered from the two Wai (Anhwei and Honan) to Kiang Cheh (Kiangsu and Chehkiang), as the government had not a sufficient supply in the granary.

REFERENCE: Southern Sung Book, chapter on the Emperor.

Reign Chien Dow.

An edict was issued ordering the Two Chehs to relieve the wandering. District officers in Sou Sin were dismissed on account of the death of many of the wanderers there.

The government relieved the famine in the Two Cheh and Kiangtung (Kiangsu).

The government relieved different provinces which had suffered flood, drought, disaster, etc.

An edict was issued ordering officers in Kiang Cheh (Kiangsu and Chehkiang) and Wai Min (Anhwei and Fukien) to buy grain from people only in the places where granaries were located. And *they were not allowed to force people to sell grain.*

REFERENCE: Wen Tsiang Tung Kao.

Fan Chen reported to the emperor that the yield of the wheat crop in Kwong Wai (outside of the Great Wall—Mongolia) was twice that of ordinary years (within the Sung Empire).

Yew Mow says: "The *strength of the people in the Southeast has broken down and deteriorated* (the bad conditions heretofore referred to were for the most part in north China) and even in the families of the middle class people there are no savings for more than a few months ahead. When there was a drought the year before last there were 122,000 hungry in the Nankong District of the State Kiangtung (Kiangsu)

and 72,000 hungry people in the Shin Kuo District of the State Kiangsi.

"We are familiar with the government relief works of the golden age of the previous years (same dynasty), namely of Foo-Pi-Tsi in Tsing Chow (Shantung) (Emperor Ren Chung) and that of Chow Pen in Kwai Gee (Chehkiang). The disasters of those times were considered to be very unusual already. But when we come to study them carefully, we notice that in the whole division (state) of Tsing Chow (Shantung) there were only 150,000 hungry people, and in the big county of Kwai Gee there were only 22,000 hungry people. At the same time, the rice used in the relief work was 150,000 loads by Foo-Pi-Tsi, and 36,000 loads by Chao Pen. But at present (Emperor Show Chung) the government and private individuals in Kiangtung have combined to relieve and save the hungry, and the rice used for the purpose amounts to 1,420,000 loads, the district of Shin Kuo alone consuming 70,000 loads. . . . The best way to conduct relief is to urge cooperation of the people; the government should offer rewards in order that rich families will contribute grain to help in the relief work."

REFERENCE: Sung Book.

Those *districts which had no harvest because so many had abandoned their fields* were relieved according to the number of mouths.

People were called upon to cultivate waste fields belonging to fleeing persons. Taxes on these waste fields were suspended.

Those who came back to their original occupations were assigned other waste fields. Returning people at Hupeh and Hunan were assigned fields and given loans of seeds and money.

The service system was equalized; landholders were severely limited; and wandering was greatly suppressed.

Farming and the raising of mulberry trees were greatly encouraged.

People were urged to plant wheat in the winter in preparation for the coming spring.

Officers of the districts east and west of the Kiang (Kiang-

su, Anhwei, Kiangsi), north and south of the Hu (Hupeh and Hunan) and east and west of the Wai (north of Kiang, Anhwei and Honan) were ordered to lend seeds to the people.

The reward for faithful farming was made still larger. Volunteers were called for to open and cultivate waste fields.

Transportation of oxen from the Two Wai (Anhwei and Honan) was prohibited.

Different states were excused from reporting land used for planting wheat (exemption from taxes).

REFERENCE: Ku Kin Tsi Pin Liu.

An edict was issued that no more taxes be levied in the Two Wai in order that people might be encouraged and induced to open and cultivate waste land.

Yuan Chi reported to the emperor that the people in the *Two Wai occupy land without limit.* As they have already been excused from two taxes, they only have to pay rent in grain and silk. *On the other hand the poor have not sufficient strength (to bear rent, etc.) and simply give up their fields as waste land.* "Therefore," says he, "I urge that an edict be issued to all districts to mark boundaries and give certificates. Thus if people occupy much land, and their taxes are less than they ought to pay, additional taxes will be levied according to their land holdings. Untilled fields should be given to others to cultivate." . . .

REFERENCE: Wen Tsiang Tung Kao, chapter on Food and Commodities.

An edict was issued to open enclosed fields (enclosed by the rich and influential families for monopolizing irrigation, etc.) and to open up ditches and waterways. For the water benefit in Kiang Cheh (Kiangsu and Chehkiang) had not been well cared for, for a long time.

270 chuans of abandoned fields at Chain Hu (Sho Sin, Chehkiang) were used to restore the lake to its former condition. Consequently there were no more floods and 9000 chuans of people's fields yielded a double harvest.

Peh Yeh Hu (White Leaves Lake) was built for irrigation of fields and 1000 loads of seeds were sown.

Same, chapter on the Emperor.

The camp fields in Wai Si (west of Wai River, Honan, Anhwei) and Kiangtung (Kiangsu) were abolished, and volunteers were called for to cultivate these fields.

Soldier farms in the Two Wai (Kiangsu, Honan, Anhwei) were redistributed and volunteers called to work thereon.

Same, chapter on Food and Commodities.

Banks of more than ten waterways were restored in the three districts of Penn Chow (Kiangsu) and the irrigation benefited even the neighboring districts.

The government loaned money and rice to land owners at the important points of reservoirs and waterways of wet fields in Su, Hu, Shau, Shou states (Kiangsu and Chehkiang) that they may build up the banks of waterways during their leisure time from farming, the idea being to increase the height and width of the embankments in order to render wet fields safe from flood.

The government sent 10,000 soldiers to restore and rebuild banks (of waterways) to irrigate fields aggregating more than 230,000 mows (these waterways were built in the Han Period).

Willow and Yu trees were planted on the banks of low fields in Tai Pin Chow to protect the fields from wind and big waves.

There was an edict issued ordering people to do their best to open up ditches such as Li Kong in places like Pin Kiang.

72 sources of the Len Hu (Len Lake) in Chen Kiang Foo (county) (Kiangsu) were restored and rebuilt to irrigate more than one million mows of fields.

REFERENCE: Sung Book.

Chang Yee reported that the rich were converting lakes into fields, hence taking away reservoirs, etc., thus causing flood and drought. "The states of Su, Hu, Shen and Show (Kiangsu and Chehkiang) *used to have floods only once in a while; but now they frequently* suffer disasters."

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Formerly there were lakes in Fuchow (Fukien) to irrigate several 10,000 mows of the people's fields. But later the powerful and the shrewd stopped and clogged up these *lakes* and converted them into *fields*. Consequently whenever there was drought, the high fields in the northwest had no water; and when there was a flood, the fields in the southeast would all become vast swamps. So the government opened up these lakes, and restored all of them to their former condition.

REFERENCE: Sung Book.

Embankments against the sea at Show Chow (Kiangsu?) had been abolished for almost 100 years, so all the land at Su and Hu was affected. Chiu Sun investigated the old traces and built embankments for three months in three states. Consequently the salty and poor land was changed to good fields.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Lin Kiang, district officer, finds a possible means of irrigating the Nan Tung fields. Hence he makes water gates in the embankments and the benefit lasted a long time.

REFERENCE: Encyclopedia, Agricultural Administration, Literature Series.

Chu Si's letter to Chang Tin Shaw on the *Rich Eating Up the Poor:*

"Ting Chow is the poorest county and the most isolated in Ming (Fukien). . . . But the district officers are very strict and intolerant, and the people can hardly make a living. Consequently they have fled and moved away, and their fields have been left waste. The good fields of these fleeing people have been confiscated and occupied by the rich, while the lean soils have been distributed by the district officers to the relatives and neighbors. As a result, taxes and services are unequal, and the small people become more and more disturbed every day. Therefore the escaping and deserting are increasing, and thieves and robbers each day become more numerous. . . .

The system of surveying and fixing the boundaries is greatly welcomed by the small people from 1000 of lis, but the influential and big families all consider it to be inconvenient.

Instruction (from Chu Si) to the official clerks of surveying and boundary marking:

"In surveying and marking the boundaries you must apportion the land taxes equally and justly, and make the records accurate both for the rich and the poor, that the poor and inferior doors may not suffer being eaten up by the influential and cunning. Although this method will more or less disturb those whom it touches, it must be done to do away with the defects that have been deeply rooted for hundreds of years, and to make possible policies for permanent and far-reaching benefit to the people."

§ 3. *Emperor Kwong Chung (third emperor), 1190-1194.*

REFERENCE: Sung Book, chapter on the Emperor; also chapter on Food and Commodities.

Reign Sou Sin.

Fourth year: The sale of official fields was suspended.

Same, chapter on Food and Commodities.

The district officers were ordered to establish and fix "water benefits" for irrigation of fields.

Same, chapter on the Emperor.

The government carried on relief work as usual, i. e., relieved conditions due to flood and drought.

§ 4. *Emperor Ling Chung (fourth emperor), 1195-1224 A. D.*

REFERENCE: Southern Sung History, chapter on Food and Commodities.

Reign Chung Yuan.

First year: The official fields were again for sale.

Fourth year: An edict was issued to the effect that the official fields in different states might be sold at *reduced* prices in

the event that they could not be sold at the present price. And in the cases of fields which were *sandy* and *uncultivable* they were to be given to people *without* charge.

REFERENCE: Continuation Wen Tsiang Tung Kao.

Reign Jar Tin.

Eleventh year: Chen Chi-Chin, district officer of Chin Tien district (Kiangsu?), reported to the emperor as follows: ". . . . We only saw that the *escaping and deserting families have become more and more, and the return of the land tax has become shorter and shorter.* Both the government officials and the common people (high and low) all feel the gravity of the situation day by day, and no one seems to know what has been actually the source of the trouble. Some district officers, who are rather aware of the general alarming conditions, have the idea of *correcting* the boundaries of the fields. This, of course, would make the small people feel somewhat relieved, but the huge families (rich) would feel very agitated about the process. . . "

The emperor acted on his advice and issued an edict to correct the field boundaries in the county of Shang Chow (Kiangsu) and Jar Sin (Chehkiang).

Seventeenth year: Wai Chin (officer) reported to the emperor as follows: "In the time of peace,[1] the land tax in grain [2] to the capital [3] was mostly coming from the southeast,[4] of which Kiang [5] Cheh [6] contributed the major share. Since the restoration of the Sung Dynasty (beginning of southern Sung) Cheh-Si [6] has become the capital of the nation, and consequently the government depends upon the harvest of Chehkiang still more. . . . Since the reign of Hsiao Chung, however, many influential people and huge families have been

[1] Refers to Northern Sung Dynasty.

[2] Rice.

[3] Honan was the capital of Southern Sung, *i. e.*, the capital province.

[4] Means South China.

[5] Kiangsu.

[6] Chehkiang.

springing up from time to time. They enclosed huge areas of land and occupied them by force. These [enclosures] happened every year, and the benefit of lakes and reservoirs (supposed to be public property) has grown less and less. In a short period, the enclosed fields of these huge families were found everywhere in the country. . . . Of course, it is the duty of the district officers to prohibit such doings, but all the families which have been enclosing fields are families of great influence, and their influence is far stronger than that of the district officers. Therefore the officers fear to have any trouble with them, and have let them do as they liked. This has already become a tradition, and the evil of land enclosures [1] has become very deep-rooted. . . . Moreover, the evil of enclosed fields not only affects the water benefit of the people but there is another trouble far more serious. As a rule these enclosed fields are far out in the country, so the land owners have to build houses to keep the tenants. When they are enclosing a huge amount of land, they wish to rob the property of the common people in the neighborhood. Besides they are keeping many young men of bad character and criminal record who are nominally known as the tenants of these huge families. In case the harvests of the year are very good, then we might be fortunate enough not to have much trouble. But in case the year should be rather bad, the several dozens of them (tenants) would be grouped together to rob the merchants and farmers in the neighborhood. Sometimes they even murder people, and some of the cases are already on record. So I (Wai Chin) am afraid that these are the great sources of trouble in the years of famine. If we (the government) can clear up these places so as to give them no room to gather together, it will be one of the best policies to stop the evil of robbery and theft in a quiet way."

[1] Enclosing the fields by force and occupying the same as their own property. Does not necessarily mean they were used for pasture as in the case of enclosures in England. They were using most of the land still for farming purposes, although they could choose to devote parts to other purposes if they so desired, because of their large holdings.

§ 5. *Emperor Li Chung (fifth emperor), 1225-1264 A. D.*

REFERENCE: Southern Sung Book, chapter on Food and Commodities.

Hsieh Fong San, imperial teacher and imperial censor, reported to the emperor as follows:

"The evils of 'eating-up' by the influential and strong people has reached its climax to-day. So we must limit the land holdings of the people; and it is one of the possible means by which we might save the situation. It is more than 120 years since our dynasty (Southern Sung) was situated at Chien Tang (capital of Chehkiang) as our capital. On the one hand, much of our land has been left *waste day by day*; while, on the other hand, the population of the empire has been greatly multiplied. The influence of the powerful families is becoming greater and greater, the tradition of eating up is becoming greatly aggravated, the common people poorer, while the system of field boundaries and land taxes is suffering decay every day. Both the government and the people are mutually involved and in a desperate condition, and there seems to be no way of improvement. Those rich and influential people, who are in control of the situation, are acting as if they had the power of the emperor of the empire. And all far-sighted persons are exceedingly anxious over the general alarming situation.

"As we all know, the life of millions of our people depends upon the grains (rice and millet) and the production of grain depends exclusively on the land. But at present all the fertile fields are in possession of the families of influence and nobility and some of them are receiving rice as their rentals amounting to as many as one million loads annually. On the other hand, the small people with *100 mows* of land, are suffering the burden of public service every year. So when the officers (district) are taxing these poor people in a hundred ways the only possible thing for them to do is to offer their land property to the huge families in order to avoid public service (forced labor).

"As a result, the land of the poor people becomes less and less every day, and yet they have to be subject to forced labor just the same. On the other hand, the land of the great officials becomes multiplied all the time, yet the service of forced labor never reaches them. This is the reason why the flesh of the weak has been gradually eaten up by the strong; and the process of eating up has become more conspicuous every day. Consequently the poor have no possible way to make their living. At such a critical moment, how can the government possibly get along without adopting a strict system of land administration so as to prevent this danger?

"Last year, some imperial censor proposed the system of land limitation, but the government took no heed of such a proposal. We must realize that the national expenditures today, both civil and military, are all dependent upon the revenues from Ho-ti.[1]

"As we all know, the present situation is very grave. The enemy (Kin Dynasty) is watching wickedly on the front, while the robbers and thieves are waiting impatiently in the interior.

[1] The Ho-ti system: The farmers were required to pay a certain amount of grain in addition to, and proportional to, the land tax. The government after a certain length of time, probably after the grain had been sold out, was to return the equivalent value of this amount of grain to the farmers.

There were of course corruption of officials, as well as other defects involved in the administration of Ho-ti. Thus, for instance, the Ho-ti was not actually proportional, because the families of huge holdings hid their ownership to avoid the land tax and also thereby avoided their share of Ho-ti. Then the government might not have paid back the money value at all, or else payment might be very much delayed. And such payments were usually, moreover, made in paper money which was much depreciated due to an over-issue of paper money.

The literal meaning of Ho-ti is Free Exchange or rather Free Buying of Grains. It was developed in Southern Sung dynasty to help defray the very excessive expenditures at that time, excessive especially in proportion to the national income, as there was only half the territory for income whereas a huge indemnity to the Kin (Northern Dynasty) had to be paid, because of the downfall of Northern Sung, besides heavy expenses growing out of the constant hostility of the northern barbarians and the suppression of local troubles.

At such a critical moment it must be admitted that it would be much better for the rich to contribute some money to help the country and relieve the present and immediate pressure, rather than for them to keep tight in their hands their tremendous wealth and huge land-holdings, when they know that they cannot enjoy these for long anyway (for if the government falls they cannot continue to enjoy their holdings). So the only thing they (the rich) need is some one to persuade them and to explain the real situation.

"So I request the government to take the advice of some officers in regard to the limitation policy, in order to regulate field boundaries, to stop the process of eating-up, to maintain the dignity of the administration, and to strengthen the financial position of the country. I further request that your majesty shall not be influenced by court favorites to adhere to your original mind, and that the ministers shall not be afraid of making enemies (among the rich) by carrying out the best policy of the time. Then it will be for the best fortune of the whole empire."

The emperor acted on his advice and adopted the system of *land limitation* (see next reference).

REFERENCES: Southern Sung History, chapters on Food and Commodities, and on Chia Shih Dow; also, Continuation of Wen Tsiang Tung Kao.

Reign Tsing Tin, fourth year:

Chen Yao-Sow and Tsao Hsiao-Chin, two imperial censors, reported [1] to the emperor as follows:

"In considering the defects of the present systems such as Ho-ti and Paper Money,[2] we propose the adoption of the land-limitation policy as discussed in our former reports.

"If the government can undertake to buy one-third of the land, which is beyond the limit according to the government

[1] Acting on the advice of the Prime Minister, Chia Sze Dow, a court favorite.

[2] Paper money was issued to excess at this time.

regulations, from the people in Two Chehs (Chehkiang), Kiangtung (Kiangsi and Anhwei) and Kiangsi, and use it as public land (belonging to the government), it will obtain ten million mows of land yielding an annual harvest of about six or seven million loads of grain (about .6 or .7 loads per mow).[1] This amount of grain would enable the government to have sufficient for army provisions, to abolish the Ho-ti System, to raise the value of paper money, to equalize the price of commodities, and to satisfy the rich. Thus we shall have the above five benefits."

An edict was issued to adopt the proposal, but some officers objected to the scheme.

Then Chia Sze Dow, the prime minister, reported to the emperor: "Before we rectify the value of paper money, we must stop its issue; before we stop the issue of paper money, we must abolish the system of Ho-ti; and before we abolish the system of Ho-ti, we must adopt the system of land limitation."

Chia Sze Dow then went on to criticize the mistakes of those who had objected to his policy, and the emperor acted on his advice. The government undertook to buy the land, which was beyond the limit, as public land. Some of the land in Chensi (Chehkiang) was worth 1000 strings of cash for one mow, but it was bought by Chia Sze Dow at the price of forty strings (by compulsion). All the local (district) officials were trying to follow the lead of Chia Sze Dow, and the government considered it meritorious for any official to buy a great deal of the land. As a result, the people in Cheh Chung (Chehkiang) were greatly disturbed, and many people fell into bankruptcy.

REFERENCE: Sung History, chapter on Food and Commodities.

Same reign and year.

In the six counties of Cheh Si (Chehkiang) the prices for the land bought by the government as public land were as follows:

[1] Note this is only an estimate, not a report of actual fact.

For land worth 1.0 load [1] of grain as annual rental, 200 strings cash per mow was paid.
For land worth 0.9 load of grain as annual rental, 180 strings cash per mow was paid.
For land worth 0.8 load of grain as annual rental, 160 strings cash per mow was paid.
For land worth 0.7 load of grain as annual rental, 140 strings cash per mow was paid.
For land worth 0.6 load of grain as annual rental, 120 strings cash per mow was paid.

As to the payment by the government to the landowner (from whom it bought the land):

For land amounting to 5,000 [2] mow or more, payment was made in the proportion of 5 per cent silver,[3] 50 per cent Kwan Kao (Government or Official notes), 20 per cent Tu Tien (treasury notes), and 25 per cent Kwai Tzu [4] (special notes).

For land amounting to less than 5000 mows: Tu Tien 50 per cent and Kwai Tzu 50 per cent.

For land amounting to from 300 to 500 mows, 100 per cent Kwai Tzu notes.

In this particular year the harvest was rather successful. Yet the government only paid forty strings of cash for every mow of land (people were compelled to sell) and half of the payment was in the form of Kao (government notes) and Tien (treasury notes). When the people received these government notes and treasury notes, they could not use them. Consequently these six counties (Chehkiang) [5] were in a greatly disturbed state.

[1] These figures represent the rental only instead of the actual harvest. Probably the actual harvest was twice the rental, as the landlords used to charge 50 per cent of the harvest as rent.

[2] This 5000 represented the amount of land bought from one owner.

[3] Notice that the rich were treated better than the poor.

[4] Kwai Tzu was the worst kind of paper currency, i. e., worst in public estimation.

[5] Chehkiang was the capital province of Southern Sung and was supposed to be the best part of the country (South China) at that time.

§ 6. *Emperor Yin Kuo Kun (Duke of Yin Kuo, last emperor of Sung), 1275-1276 A. D.*

REFERENCE: Sung Book, chapters on Yin Kuo Kun and on Food and Commodities.

Reign Der Yu or Te Yu, first year:

An edict was issued as follows:

"The system of public land (as outlined in the above reference, adopted by Chia Sze Dow) is one of the evils from which the people have most suffered, and it has been the source of hatred and agitation (against the government) for more than ten years. From now on, all the public land should be entirely returned to the original owners, who should be required to lead their tenants as soldiers (against Yuan Dynasty, Mongols)."

But the fate of the Sung Dynasty was already sealed.

CHAPTER X

Kin Dynasty, 1115-1234 A. D.

(Northern Barbarian, coexistent with Southern Sung)

§ 1. *Beginning of Kin Dynasty.*

Reference: Kin History, chapter on Food and Commodities.

Under the Kin System there were two kinds of fields, private and public. The private fields belonged to the individual owners and they could be sold or mortgaged without any restrictions. But the government or official land was only given by the government under certain restrictions. Any poor person, whether barbarian Kin or Chinese native, who was willing to cultivate the same, was given 100 mow for every male adult in the places of sparse population, and ten mow in places of dense population. A secondary male adult (perhaps fifteen to sixteen years) received one-half the amount.

Those willing to cultivate waste land were to be taxed after eight years at the rate of the fifth sub-class [1] of the inferior class of land. And those cultivating their own waste land were taxed after seven years at a rate of half the seventh class of land (inferior land).

During the period of the early Kin emperors, farming was strongly encouraged. The imperial troops were prohibited from tramping on the rice crops, officers were sent out to different states for the encouragement of farmers, courts were in session only during the leisure time of farmers, and wine-

[1] Kin must have had divisions similar to those of Sung, i. e., the land was classified into superior, medium, and inferior grades, and each of these three classes was subdivided into ten classes, making thirty classes altogether.

drinking during the farming season was prohibited. Further, there was no limit set for pasture and people were allowed to cultivate wherever they desired. The Deer Gardens in Kingsi (west of the capital) were given to farmers to be used as fields. And farming was enjoined in that all those failing to cultivate their own fields were to be punished.

The wandering "doors," who came to Nanking and Tai Ming (Chili) on account of the flood, were given oxen for plowing and officers were ordered to comfort the people at Shantung who had come back to their original occupations and to urge them to plant in season.

§ 2. *Emperor Shih Chung.*

Same reference.

Edict:—"I hear that many fields in Shansi have also been occupied by powerful and important persons, one family sometimes occupying as much as 3000 mows per mouth. As a result the small people have no land to cultivate and many have been forced to move to the poor land in the Shang Yin district (north of Shansi, Mongolia). How can they make their living? So be it ordered that all those occupying official land above 1000 mows [1] be required to return the excess amount above the first 1000 mows [2] to the government for distribution to the poor."

At this time more than 70 high official families were reported as holding as much as 300,000 mows of official land.[3] The edict confiscated all except ten chuans (100 mows) for each family. This surplus was distributed to the poor, as official land in units of 50 mows for each person.

[1] Notice that it did not affect the privately owned land.

[2] In addition to 1000 mows of land, each family was allowed some land for the purpose of oxen pasture.

[3] Three hundred thousand mows for over 70 families makes an average of 4000 mows per family. Each of these families might have owned some private land too, at the same time. So the largest land holdings at that time were considerably larger even than 4000 mows.

The land holding was to a certain extent limited according to the number of adults in the family. One family with three adults (usually meaning male adults) if they were each holding less than 30 mows of land (private) were to be allowed to retain 120 mows of official land, which was rented to them by the government. All the excess amount was to be taken away for distribution to the poor.

§ 3. *Emperor Chang Chung.*

REFERENCE: Kin Book.

Attention was paid to agriculture by the sending of inspectors to the different states for the overseeing of the rice crop and for determination of the amount of rainfall in different places.

Volunteers were called to farm on those places such as Tsing Ho (Chili and Shantung); and the government land in Honan which was waste and unoccupied was rented to people for cultivation. Those renting this land were exempt from taxes for eight years (but must pay rent), and those accepting the same as their own property did not have to pay rent but were exempted from taxes for the period of three years. But no one was allowed to sell or rent his land to anyone else.

Same, chapter on the Emperor.

People were allowed to plant on all land except the public highways and roads. For every 40 mows of fields, one mow was to be planted with mulberry trees. The destruction of woods or trees was condemned.

Same, chapter on Food and Commodities.

All districts and counties were ordered to open waterways to conduct the water from the Yellow River for the irrigation of fields. The water from the Peh Lien Tan (White Lotus Tan, a tan was an extremely deep body of water) was freed for irrigation. The dikes of the Yellow River were ordered not to be destroyed, so that the water would be available for irrigation.

During the fourth year of the Ming Chang reign the government first tried to adopt the system of Chu Tien.[1] A farmer holding more than 100 mows of land was ordered to cultivate 30 mows according to the Chu Tien method, and any number above 30 mows if he so desired. However this order only held in places where water was available;[2] in other places the people were free to do as they wished. There was also an order based on the family unit with regard to the Chu Tien. Thus every adult (male) between 15-60 years was required to cultivate one mow of land according to the Chu method. If one family had more than five adults, it need not cultivate more than five mows according to the Chu method.

Afterwards the government adopted the system of Chu Tien for sowing as well as for cultivation. It was claimed that this was the first time in history that the Chu Tien method was adopted for sowing, as all previous references only mention it for cultivation.

§ 4. *Emperor Hsien Chung or Shen Chung.*

REFERENCE: Kin Book, chapter on the Emperor.

An edict was issued discontinuing the use of the Zen Kau (a water-wheel device for rolling, grinding and thrashing) and ordering that the water be used for irrigation.

REFERENCE: Kin History, chapter on Kao Yu-Li.

Reign Jen Yu, third year:

The government moved the soldier families (families having adults who were soldiers) from Ho-Peh[3] to Honan. But the rentals from the official or government land (in Honan) were

[1] The stripping of the fields was first practised by Yi Yuan, prime minister to Emperor Tang, first emperor of Yin Dynasty, 1766-1754 B. C., for the purpose of alleviating drought conditions.

[2] If his land was near a river, so that plenty of water was attainable.

[3] North of Yellow River, Shansi, Chili.

[4] South of Yellow River, Honan.

not sufficient to supply [1] these soldier families. So the emperor ordered the minister to send out officers to different districts in Honan, in order to call together those elders of the villages, and to receive opinions from them whether it would be better for the government to increase the rent on the official land or to take out some of the official land from the hands of the people and to give it to the soldier families to cultivate. When these officers came back from their mission, they all reported the opinion of the farming people as follows: "In recent years, we farmers (tenants on the government land) have already suffered the heavy *burden of rent and taxes.* If the government is going to increase the rent and tax burden any we feel that our strength is really insufficient to meet the requirement, so that none of us will dare to cultivate the official land. Therefore we would rather give it to the soldiers (instead of suffering the rent or tax to increase)."

At this time, Kao Yu-Li, the minister, gave his advice to the emperor as follows:

"We must realize that the migration of soldiers' families is only a temporary [2] policy for the time being, while the cultivation of official land by the people is a matter of perpetual importance. In Honan, the proportion of official land to private land is about 50 per cent to 50 per cent, and, besides, some of the people are working entirely on official land (that is, own no private land). All of these people are *poor people,* and they have their graveyards (ancestors), farming houses and wells all attached to the land they are cultivating. So if the government is going to take away the official land from them all at once, how can they keep themselves alive?

"It must be pointed out here that it is very easy to start the

[1] The government was supposed to feed the soldier families with the grain coming as rent from the official land in Honan.

[2] These families of the soldiers were moved by the government from Hopeh to Honan because some members of these families were stationed in Honan as soldiers. Probably these soldiers were on the front against Southern Sung Dynasty, as Honan was in contact with the territory of Southern Sung (Hupeh).

small people to moving (wandering and migrating), but that it is very difficult to cause them to *settle down*. They say this time they are willing to give up the official land which they are cultivating, but it is simply because they are trying to avoid the increase of taxes. But by the time that they *have* actually to give up the official land they are cultivating, they will soon realize that they have changed their position from the master [1] of yesterday to a stranger. It is but natural that they will regret it. And when they regret it, they will be stirred with great rage.

"Sometime ago the process of redistribution of land took [2] place in Shantung. As a result, *all* the fertile land went to the families of great influence, while the lean and bad land was given to the poor 'doors'. Evidently there was no benefit to the soldiers,[3] but there was great harm done to the people (poor people). Consequently they bitterly hated each other (soldiers and people, and rich and poor), and the feeling is still in existence to-day. This event happened in Shantung only a short time ago, so we ought to take the instance as a great lesson to us. . . .

"At present the soldiers' families, which were moved by the government from Hopeh to Honan, amount to almost one million mouths. If the government gives them rice at the rate of one sheng (one one-hundredth load) per day for each head, it will have to provide about 3,600,000 loads of grain in one year.

"On the other hand, the total official land in Honan rented to the people is 24 million mows, and the total annual rent is only 1,560,000 loads of grain.[4]

[1] In that they practically owned the land that they were cultivating.

[2] Probably the official land in Shantung was taken away from the people and redistributed to the soldier families.

[3] Only the rich ones received the benefit, which they did not need, while the poor suffered on as before.

[4] This amounts to only .065 loads of grain per mow as the annual rental from the tenants. Of cousre the annual *harvest* was more than that; but it is nevertheless true that even if we assume the rental was

"So I (Kao Yu Li) suggest that the rent of the official land should be doubled (in order to cover the deficiency); and besides the government can give other official land left waste or used as horse pasture, but which is cultivable, to the soldiers' families for cultivation."

The emperor took his advice, and sent Fung Sze Chien, imperial Censor, and others to the different districts in order to distribute the imperial *waste* land to the soldier families. Every man was given 30 mows of land (this in addition to rents given to them). Kao Yu Li was appointed the general director of affairs.

A little later all the officers, sent out by the emperor, returned from the different districts, and reported as follows:

"The amount of official waste land is not very large and, besides, most of it is so sterile and exhausted that it is *impossible* to cultivate it. However, we (officers) have already distributed the cultivable part to the soldiers' families, each man receiving very little. Besides, all this land is very far out of the way, and the soldiers receiving the same had to move their homes in order to work on the land they received. Thus they considered it very inconvenient."

Then Kao Yu Li, the minister, requested the emperor to issue an edict to the effect that the distribution of official *waste* land should cease. The soldiers' families were to receive only half of their provisions in grain (from the rent of the official land) and the other half in the form of money (equivalent value) supplied by the government (from other sources).[1]

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Same reign, fourth year:

The people were allowed to cultivate any official land which

only ten per cent of the harvest, the harvest itself was less than .7 loads of grain per mow at that time. As a matter of fact, the annual rent at that time must have represented twenty per cent instead of ten per cent. In that case the harvest was only .33 load per mow, an exceedingly small figure.

[1] Evidently the government failed to double the rent on the official land, perhaps because the tenants could not afford to pay it.

had been left waste or used as horse pasture. When they succeeded in converting these lands into productive fields, half of the amount was to be given to them as their permanent property and the other half was given to the soldiers' families by the government.[1]

Reign Sin Tin, third year:

Hou Tsi, officer of the ministry, reported as follows: "The total land, both for the civilian doors and the soldier doors, in Honan is 1,970,000 chuans (recorded) and the amount of land actually under cultivation at present is 960,000 chuans (or 96,000,000 mows). For superior land, one mow ought to yield an annual harvest of 1.2 loads of grain; for medium land, 1.0 load; and for inferior land, 0.8 load. If we tax them according to the tithe system, the government *ought* to receive an annual income of 9,600,000 loads of grain, which ought to be sufficient for the annual government expenditure in Honan." [2]

REFERENCE: Kin History, chapter on Food and Commodities.

Same reign, fourth year:

In Honan there was a flood disaster and most of the doors deserted their land, and most of the land was left waste and uncultivated. The government feared that the tax income would be greatly reduced and thus make the government revenues deficient. Therefore an order was issued to the effect that all the land in the Honan district that had suffered flood should be sown with seed as usual, if the land was dried; and if it should still be somewhat soaked with water, rice [3] should be planted. All the returning families were exempted from taxes and forced labor for one year, and all those people who could cultivate land for others were subject to the same ex-

[1] This shows that the government had a very hard time to meet the deficiency in supplying the soldiers' families.

[2] Notice that this report was a theoretical consideration of the case assuming normal conditions; while the conditions in Kin were evidently far below the normal.

[3] The normal crop of Honan at that time was millet.

emptions. If any district officers should tax them at will, the same were to be punished as having broken the regulations. And to those people lacking in oxen or food, the rich were ordered to lend the necessary aid.

Same reign, fifth year:

Shih Mor Gun Lu (Barbarian), officer of Kiangnam Division (Chili), reported as follows:

"In the three divisions, Kiang Nam, King Tung, and King Si (Manchuria and Chili), the sum total of all people in the soldiers' families was 400,000, and the annual provisions required 1,440,000 loads of grain (one sheng per head per day)."

§ 5. *Emperor Ei Chung.*

REFERENCE: Kin History.

Hunting land within 100 lis of the capital was turned over to the people for agricultural purposes.

§ 6. *Kin, in general.*

REFERENCE: Kin Book.

Summary Account of Government Relief.

Under *Emperor Tai Tso* there is one mention of the year not being a good one and the statement that, therefore, the government relieved the poor.

Under *Emperor Tao Chung* an edict was issued exempting famine areas from the paying of army provisions, and the land and market taxes in Tungking (Manchuria or Chili) were reduced. Also millet was given to relieve the people in Tai Chow (Chili?). Measures were taken in preparation for famine emergencies and edicts were issued ordering the officials to increase the storage and saving of grain, and the people in the interior part of the country to pay taxes in millet.

In *Emperor Si Chung's* time drought was reported in Shensi and the government established rules for rewarding those lending help to famine sufferers, one edict granting official positions for the contribution of millet. The wandering who

had sold themselves into slavery were redeemed by the government and sent back to their native places.

The government under *Emperor Sze Chung* is credited with giving tax exemption to places which had suffered drought, worms and flood; with moving the famine-stricken to other places where they might secure provisions, exempting them from taxes and military service, and buying free those which had sold themselves into slavery. Millet at this time was very expensive in Peking (Chili or Mongolia), and flood is recorded in Hopeh (Hunan, Shansi and Chili) and Shantung. The emperor reported the following conditions in Nan Chow: "In Nan Chow (north of Chili) the famine people are scattered and wandering in search of food; pitiful is their condition. The government ought to move them to Shansi, so that the rich there may relieve and help them."

In the later years conditions seem to have grown worse as shown by the increased reports of tax exemptions, of the government giving money aid to the people driven out by flood disasters and unable to return to their work, and of the ordering of storage of grain for emergency purposes. We are told that the grain stored in the three divisions (provinces) proved insufficient for the relief work in those divisions; and a passage in the Wen Tsing Tung Kao tells of the government's establishing the Normally Constant Granary, and then soon afterwards abolishing the same. Fields in Chung Do, Si King (Chili), Hopeh (Honan, Shansi, Chili), Shantung, Shensi, etc., which were injured by flood and drought amounted to 137,700 chuans. The government had to relieve the soldier farm in Nanking (Chili) which suffered flood disasters; and on account of famine in Shantung for years, civil service for improving the Yellow River had to be suspended. The plan of building a canal by opening the Lu Kao (Lu Ditch, Chili) so as to connect the transportation canal with the capital (Chili) was also suspended because of flood in Shantung. Slaves were now freed by edict, oxen aids were given in accordance with the amount of land to be cultivated, and flood sufferers who were government employees nevertheless were

continued in their wages although they were given tax exemptions. Cabinet officers report that Hotung (Shansi) is thickly populated. Thus if the years are the least bit bad, people will have to wander and desert their homes. However, Honan is described as thinly populated, and they recommend moving the population from Shansi to Honan. The emperor issued an edict ordering the officers in Honan to induce and collect the wandering from other places.

§ 7. *Emperor Shen Chung.*

The poor were in want of provisions. The government fixed regulations for relief, and tried to maintain a fair price for grain in Pei King (Honan) by government buying and selling.

Kau Yu Li says: "At present grain is a commodity which is very scarce and very difficult to obtain, while money is very plentiful and easy to obtain."

There was an edict ordering Tien Chao to retain the wandering in Shansi; the strong to be sent to the army; the old and aged and the children to be sent to Shin Loh (Honan) to secure food provisions.

Drought and worms appeared in Ho Tung (Shansi) for many years. Besides the system of Yao Ti (government buying grain from people by force) was adopted.

Consequently the price of daily articles rose very high, and people had to wander and desert their homes. The situation was one to be pitied.

Officers request the abolition of the Yao Ti System to relieve the situation.

The government *abolished the system of Jer Ti* (similar to Yao Ti) in Hopeh (Honan, Shansi, Chili).

Also raised the *prohibition against private transport of grain.*

Also abolished the *method of trying to find hidden millet* in the hands of the people.

There was disaster in Sze Chow (Kiangsu).

"People who died from starvation were all over the roads; and the only food obtainable was the roots of grasses."

" In Hopeh, people ate human flesh."

Edict giving seeds to those whose crops had been injured.

The private transportation of grain was permitted.

Regulations and rewards were fixed for the encouragement of Ho Ti (free exchange of grains).

The government increased the savings and storage of grain.

People were *not allowed* to escape from their homes.

Those willing to return to their original occupation were excused from all hard labor (service).

A great flood and disaster occurred in Honan; doors fled, fields were left waste.

Edict exempting people from all miscellaneous taxes (except land tax).

District officers were ordered to induce the escaping doors to return, such to be exempted from land taxes and urged to do planting.

Any others willing to work on these fields were to receive the same privileges.

Edict ordering officers to send people south of the Yellow River if they desire to go: " The people in Hopeh are unable to get food provisions. Thus if they wish to cross the Yellow River to go south, the officers are ordered to send them across as soon as possible."

At this time there was famine in Kingtung (Honan). Envoys were sent to relieve the poor.

The government under *Emperor Chang Chung* started out in its relief work by sending envoys on an investigation tour into the provinces in preparation for the adoption of the normally constant granary. Official positions were given to those who contributed millet or other grain, and promotion and rank was determined by the amount of grain the district officers could buy in from the people. All states and districts were ordered by edict to establish the normally constant granary.

There was famine in different divisions due to disaster and injuries, and the Emperor removed his own honor title because of deficient harvests of the five crops. The government relieved the famished people in the different divisions, giving tax

exemptions and ordering the officers to conduct relief work in states and districts lacking food. The normally constant granary system was temporarily suspended by edict; also the Ho Ti (free exchange of grains). There was first famine in Hopeh (Honan, Shansi and Chili) and Ho Chow (Honan); next there was an insufficient food supply in Shantung, and later famine distress in Hotung (Shansi) and Shensi. An edict was issued to sell one hundred thousand loads of millet to the people at lower prices owing to the difficulty of getting food, and the officers in the capital, in different counties, states and districts were ordered to provide rice soup for the poor. A long drought brought more suffering, and relief was ordered to be given by the district officers, who were also to buy free those who had sold themselves. Cakes and rice soup were furnished by the government to the poor.

In Emperor Ei Chung's time drought and disaster occurred, and all the states were exempted from a part of the taxes and services. The government *tried to obtain all the hidden millet in the capital,* but it was found that *" all the hidden millet which the government obtained by this measure only amounted to less than thirty thousand (loads?), but the capital became exhausted.* From this time on, dead bodies filled the roads, and both the poor and rich all had to fold their hands and simply wait for death." The government tried to get all the hidden millet in Hsai Chen (Honan). The hungry and poor were allowed to go out to the country (outside of the city walls) to get food for themselves, such as water and grass and weeds.

CHAPTER XI

YUAN DYNASTY, 1277-1367 A. D.

§ 1. *Emperor Shih Tso (first emperor), 1277-1294.*

REFERENCE: Wen Tsiang Tung Kao.

There were *many waste fields* in the region of *Kiang Wai* (Yangtze and Wai Rivers) from Shun Yang (Hupeh) to Tung Hai (east sea-Shantung). Officers of agriculture were ordered to establish systems of soldier farms, and to call for volunteers to open and plow these fields. They were exempted from taxes for six years, and were also excused from miscellaneous services.

REFERENCE: Yuan Book.

Volunteers were called for cultivation of the uncultivated (waste) land in Kiangnam during the 28th year of the Tzu Yuan reign. No single family was to receive more than five chuans. The government issued certificates to them that the land might become their permanent property, and they were to pay taxes after three years.

During the first year of Tzu Yuan Reign the government distributed the pasture land (used mostly for horses and oxen) to those farmers which owned *no land,* every family being limited to four chuans (400 mows), and they were exempted from the land tax.

(1) *Government Relief Work of Emperor Shih Tso.*[1]

REFERENCE: Yuan Book.

In the Yuan Book there are mentioned twenty-two different

[1] This and the later sections referring to the *Yuan Book* are summaries rather than detailed translations of the information given on these topics.

general instances in which the government relieved famine and conditions of distress due to flood, drought and worms in the various places by exemption of people from taxes and services in whole or in part according to their condition; by the giving out of money, of provisions, and of silk. There are, besides, the cases where specific places are mentioned:

Yi Do (Szechuen); Kai Yuan (where?); Honan, Shantung, Hopeh (Shansi and Chili); Kong Chung (Kwangtung?); Kiangnam (Kiangsu); Jen Tin (Chili); Ho Tzu Chow (Chili or Mongolia?); Four States of Hong (Chehkiang), Su, Hu, and Show (Kiangsu); Ho Jen, Bau Tin and Pin Nan (Chili); Pin Yang (Shansi) and Tai Yuan (Shansi); Ta Do (Chili); Pin Nan and Kwonsi.

On account of famine in different divisions (provinces) the system of Ho Ti, or Free Exchange of Grain, was adopted by edict; and instances are recorded of envoys being sent to carry out the system in different places. In Shensi where the system was applied, Buddhist priests, powerful persons and rich individuals were all ordered to be dealt with on equal terms with the common people.

Some time after the adoption of the system of Ho Ti, the government established the system of the Normally Constant Granary and Charity Granary. And there was an edict which ordered all the provisions from Ho Ti to be placed in storage in the Normally Constant Granary. Moreover, the fund from the tax on iron was used for purchasing grain to supplement the supply of the Normally Constant Granary.

Besides the general methods of relief mentioned above, as tax exemption, the giving of provisions, etc., we are told of the government moving the poor to Honan in order to obtain food; and on one occasion, due to famine years, that the government suspended all government services, such as the building of palaces, city walls and other masonry works.

There are but few instances where any wandering is mentioned:

Edict to collect and comfort the wandering in the place administered by Tai Li Peh.

Edict ordering officers in Ho Chow (Anhwei) to induce and collect the wandering.

The wandering from Jen Tin to Kiangnam were sent back with provisions.

Edict encouraging the wandering in Si Liang (Kansauh?) to return to their original occupation. They were restored to their homes and exempted from services and taxes for three years.

Millet from the division of Ta Tung (Shansi) was used by the government for the relief of the wandering.

The wandering in Kuo Lay, Hojen and Jen Tin, etc. (Chili), were given provisions for sixty days and sent back to their original homes.

The government relieved the wandering in Tung Chow (Chili) and Ho Si (?).

The wandering in Ta Do, Pin Wen, Ho Jen, and Bau Tin (Chili) were exempted from land, wine and vinegar taxes.

There was a great flood in Kiang Yin, Ling Kuo, etc. (Kiangsu), when 458,478 doors deserted and wandered away.

Conditions were especially bad in Pin Yang (Shansi) and Tai Yuan (Shansi) when 67,000 doors wandered away.

In Ta Do (Chili) there was no harvest the preceding year, and many had moved and wandered away.

Instances of special relief measures:

The government distributed old rice to the poor. Every adult was given two dos, and every child one do (one-tenth load).

Edict to relieve all the poor who were unable to make a living.

Envoys sent to care for the children sold or mortgaged by their parents.

Prohibitions against fishing and hunting on all lakes and ponds were waived.

Edict to tenant farmers in Kiangnam (Kiangsu) excusing them from the amount of their rent to landlords, same as landlords were excused or exempted from taxes.

Reason for this, as given by the governor of Chehkiang in

his memorial to the throne, is *that farmers in North China own their land; but those in the south* (south of Yangtze) *work for landlords* (the immediate occasion for this special edict was the celebration of the emperor succeeding to the throne).

(2) *Agricultural Administration of Shih Tso.*

REFERENCE: Yuan Book.

All states were ordered to urge people to open new fields, and nothing was permitted which might be of injury to the farming interests or to farmers in their work.

Officers of agriculture for encouraging farmers were provided.

The building of the Summer House was suspended until the leisure time of farmers.

The benefits from water works were cared for in their proper seasons. Thus water-wheels were made for high fields which could not receive water by gravity. And the poor who were not able to afford water-wheels were supplied with materials by the government. After the harvest in the fall they were to pay for these wheels along with their taxes. In fields where water was not available, wells had to be dug, and where water was not available even with deep wells, the stripping method of cultivation was prescribed.

The planting of twenty mulberry trees was required for every adult every year. If mulberry was not adaptable to the soil, other kinds of trees, such as willows, etc., were to be substituted. In the case of fruit trees, at least ten of each kind were required.

Every district was ordered to plant Mon Sou in preparation for famine (not very palatable but hardy and yielding a good harvest).

Families that were near to water were allowed to dig ponds for the raising of fish, swans, ducks, lotus, etc., for help in furnishing provisions.

All waste and unoccupied fields were first given to the poor and then to other doors.

Anyone willing to cultivate unoccupied land or public fields was exempted from service for three years and his taxes were reduced one-third (only two-thirds collected).

In the two Wais (Kiangsu, Anhwei, Honan) there was much unoccupied land, the population being very sparse. Also families which gobbled up small ones did not pay taxes. Therefore officers were provided to enforce the observance of the law.

The waste fields in Honan and Hopeh (Chili, Shansi, Honan) were distributed to the Mongolian army to plow and cultivate (the Mongolian army would have horses and hence pastures).

There was an edict ordering the return of fields to owners by those who had taken properties from others by force. If the property had no owners it was to be given to neighboring persons having no property with which to earn their livelihood.

The excess fields of rich doors in Sar Chow (Shansi?) were discovered and given to the expeditionary army.

Wong Yuan Chuan requested that *several rivers,* as Chang, Foo, Lee, etc., in *Honan,* be opened to reach the springs for *irrigation of the people's fields* and the emperor granted his request.

An inspection and survey was made of the *old trace of water* from King Kao (Golden Gate), Yen King (Chili), which formerly *irrigated many chuans of fields* in order that the old current might again flow through these courses.

The Ren River (Honan?) was conducted to the fields, and the people's fields restored thereby were more than three thousand chuans.

The Fei River was conducted to enter Tsen River, to convert muddy ponds into good fields.

Both soldiers and people were sent out to dig waterways for irrigating fields.

REFERENCE: Ku Kin Tsi Pin Liu, chapter on the Agricultural Administration of Yuan Dynasty.

All through the reign of Shih Tso every door was provided for and every mouth was sufficient.

§ 2. *Emperor Chen Chung (second emperor), 1295-1307 A. D.*

REFERENCE: Yuan Book.

An edict was issued for instruction to be given both within and without the country (that is, China proper and the outlying districts) with regard to the system of farming, raising of mulberry trees or silk culture, water benefit (irrigation), etc.

REFERENCE: Ku Kin Tsi Pin Liu.

Those who toiled in the fields were rewarded, the wandering and lazy punished, and those who permitted animals to spoil the crops or the mulberries were fined and punished.

But in spite of these regulations there was drought and too much rain, so that hunger and famine were frequent, and wandering and deserting people many.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Officers were provided for the establishing and up-keep of rivers, waterways and enclosed fields.

REFERENCE: Yuan Book.

Enforced laborers were sent to *reopen water courses* at Woo Kiang (Woo River) and Sun Kiang (Sun River) (Kiangsu)—as the tide had clogged up good fields.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Land in the two Wais (Kiangsu, Anhwei, Honan) which had been occupied by the powerful was discovered and subjected to taxes.

REFERENCE: Yuan Book, chapter on the Emperor.

Reign Ta Der, first year:

The government moved the soldiers of Tan Tien (soldiers' fields) at Shung Yang (north of Hupeh) to Nanyang (south of Honan to the north of Shung Yang). Each family was to receive 150 mows, and the government provided them with seeds, oxen and farming implements.

Sixth year: The emperor held council with some of the court

officials, saying: "I have heard that some of the rich families in Kiangnam (Kiangsu and Anhwei) have robbed the people and occupied their fields by force; this has caused the poor people to wander about, to desert and migrate. Have you officials ever heard about this matter?"

The officials answered: "Many of the rich people are holding certificates with the emperor's seal which they have been using to cheat the poor. Therefore the officials could not take up the matter. So the government ought to recall such certificates."

The emperor then issued an edict to recall all such certificates within three days.

Seventh year: In Yi Tu, etc. (probably in Shansi), some of the pasture land (horse pasture) was given to the people to cultivate. At this time the rental charged on such land was one tou (one tou is one-tenth load) of grain per mow, but the government thought that it was still too heavy for the tenants to pay, so that it was reduced to four sheng (one sheng equals one one-hundredth load) per mow.

Government Relief.

REFERENCE: Yuan Book.

General statements of the government issuing provisions and money, and granting exemptions from taxes to relieve different divisions which suffered famine and injuries from flood, drought and pests, occur some eleven times in the Yuan Book with reference to Emperor Chen Chung.

The specific instances of bad conditions and their relief are as follows:

Great flood at this time in Kiangsi County (Kiangsi); no harvest of rice.

Great storm and drought in Hwai and Shen Der (Chili). Wheat crop injured. Hence tax exemption.

Bad conditions in Hong Chow (Chehkiang) and Kiangnam (Kiangsu).

Government millet for the poor and hungry in different

states, as Hupeh, Hong Chow (Chehkiang), Shangchow (Kiangsu), etc.

Flood in Pin Kiang Liao Yang, etc. (Korea). Government relief and tax exemption.

Oversupply of rain in Shantung (Tsi Nan, Bib Ti, Yai An, Kau Tang). Price of grain high. Wandering and desertion in large numbers. Government millet given out and distribution of one hundred thousand pieces of silver.

REFERENCE: Huang Chen Kao Liu, Brief Research on Government Relief.

Officers in Honan Province ordered to relieve the wandering there. The government *gave houses and shelter to the wandering wherever they were found, also mouth provisions* in order to prevent the development of famine.

The year was hungry (lean) and the people exhausted. Tax exemption and loans of food by the government.

There was an edict for the *reduction of rent twenty per cent for tenant farmers* in Kiangnam.

"In Kiangnam (south of Yangtze) tenants are working on fields of landlords, and rents charged have been far too heavy. Consequently these small people are becoming poor and exhausted. From now on rents should be reduced twenty per cent and this rule should be enforced universally and permanently. If the harvest is insufficient, the landlords should succor their own tenants, and not let them come to the point of not being able to earn their livelihood. The provisions which landlords have already loaned to their tenants are not to be returned until years are good in harvest. Landlords are forbidden to use shrewd methods and to charge exorbitant rents. Otherwise they will be severely punished."

REFERENCE: Yuan Book.

The government sells grain at lower price (lower than market) for the purpose of equalizing the prices.

Official positions were offered to the rich for contributions of private millet for relief of the poor.

Prohibition measures were adopted by the government in Hong Chow—because of the *large amount of grain used for making wines .*

§ 3. *Emperor Wu Chung (third emperor), 1308-1311 A. D.*

REFERENCE: Yuan Book.

About 60,000 chuans of waste fields along the banks of the Yellow River were discovered in the region of Kwai Der and Yu Lin of Honan Province.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

There was no harvest of the rice crop in the previous year due to flood, drought, and disasters. So the governor of Chehkiang directed the people to repair enclosed fields.

Government Relief.

REFERENCE: Yuan Book.

The hungry became very numerous on account of continuous flood and drought. An edict was issued ordering the officers in different divisions to carry on relief work.

People in all states were suffering from famine and hunger, and wandered.

Officers were ordered by edict to relieve them at every place.

People were excused from back dues of taxes; also exemption of services and taxes.

The Normally Constant Granary was established for the maintenance of fair prices of all commodities.

The prohibition against uses of government property in mountains and brooks, etc., was waived.

The hungry and wandering who returned were exempted from taxes and services for three years.

The government buried the dead bodies found everywhere.

There were continuous great floods in Hsu Pi (north of Kiangsu) for many years; people were compelled to wander and desert their homes. The government gave exemption from taxes and services.

Relief work was conducted in different districts due to disasters and injuries.

The government relieved the people in the different provinces from famine; also exempted a part of the land and service taxes.

The government relieved the wandering at Linpeh (north of the mountain Hunan, etc.).

The officers were ordered to establish more rice shops for selling rice at fair prices to relieve the people.

REFERENCE: Brief Research on Government Relief Work.

The government constantly worked to relieve people from disasters, but its favors had not reached the people universally, and the wandering and deserting had not yet been comforted and gathered together.

§ 4. *Emperor Ren Chung (fourth emperor), 1311-1320 A. D.*

REFERENCE: Yuan Book.

Agricultural Administration.

An order was issued emphasizing the importance of plowing in the fall for the benefit of the soil.

Government Relief.

An edict was issued ordering the officers of Lin Peh (Hunan, etc.) to relieve and help the wandering who were lacking in food and provisions.

The government relieved the wandering of Shantung who had moved to the territory of Honan.

There were famine and hunger in different provinces.

The government conducted relief, exempted taxes, prohibited wine-making, waived the prohibition on use of public lands (mountains and brooks), and emphasized charity granary (which had decayed to only nominal existence).

In Bau Tin, Jen Tin, and Ho Jen (Chili) wandering continued. The government gave two months' provisions and exemption from taxes and services for one year.

REFERENCE: Huang Chen Kao Liu, Brief Research on Government Relief.

There were famine years. The government conducted relief work, distributed rice and provisions, prohibited wine-making, and exempted from taxes and services. An edict was issued ordering officers to sell grain at lower prices; also to relieve the wandering at the places where they were.

Edict:—"Everywhere the wandering go, the local officers should relieve and comfort them, so as to prevent their coming to a stage where they have no place to stay and work for their living. If the wandering are willing to work on the farm, the officers are to give them fields for cultivation, the amount corresponding to the number of members in the family. If any of these people are unable to supply themselves, the officers are to give them mouth provisions. Those who return to their original occupation are to be given back all properties they had deserted; and they are to be exempted from services for three years."

REFERENCE: Yuan Book.

There were flood and drought in different "divisions" (provinces) and people were wandering away.

An edict was issued ordering officers to sell grain at lower prices for relief.

Provisions, money, millet and wheat; and tax exemption were given to different divisions which suffered famine, poverty, disaster, and injuries. Ten loads of wheat were given every door in the counties of Tung Pin and Tsi Ling (Shantung).

The government re-established the charity granary and gave out grain for relief.

Wandering people of Honan crossing the Yangtze disturbed the places wherever they went.

Both soldiers and people were relieved from famine in the different divisions.

An investigation was made of the number of wandering in

the two states of Sar and Chin (Shansi?). These were forced to go back to their native places.

§ 5. *Emperor Yin Chung (fifth emperor), 1321-1323 A. D.*

REFERENCE: Yuan Book.

Government Relief.

The government distributed millet to relieve the people from famine in the different divisions; exempted land taxes; sold grain at lower prices; suspended services and prohibited wine-making.

Different districts and counties were suffering from disasters and injuries. Many people were hungry; the government exempted them from taxes and gave rice for relief.

Traveling provisions were given to the wandering who were returning to their homes.

In Chehkiang, district of Ho Si of Lin State, there was no rain for both spring and summer. Sowing of seeds was impossible. The natives wandered and scattered. Local officers were ordered to relieve the people and to make them return to their original occupations. All those returning were exempted from taxes and service for three years. The government also bought back their wives and children.

§ 6. *Emperor Tai Tin Ti (sixth emperor), 1324-1327.*

REFERENCE: Yuan Book, chapter on Tai Tin Ti.

Agricultural Administration.

In the second year of Reign Tai Tin, Chow Chien, the minister, proposed to adopt the system of Chu Tien (stripping fields).

In the third year the government gave the official land in Shantung and Hukwong (Hupeh and Hunan) to the people to cultivate; each man being given three chuans (300 mows) and the government also gave them oxen and farming implements.

Government Relief.

Money and provisions given to relieve the people from hunger in different divisions.

The government relieved the wandering of Mongolia, and gave 290,000 pieces of silver to send them home. They were prohibited from leaving their own tribes, subject to penalty of capital punishment for violation.

Provisions and money given to relieve famine.

Edict to put charity granary in good condition.

Edict to officers in Shantung to care for children left behind by the wandering.

Wandering people in Ho Jen state (Chili) went over to states of Tung and Kuo (further north) to get provisions. Therefore government relieved them.

Counties which had suffered disasters were exempted from taxes, also given provisions and money for their relief.

Famine in different provinces. People exempted from taxes for one year, also provisions and money given them accordingly. Wandering who returned, exempted from service and taxes for three years.

Price of rice reduced to 15 strings per load (three years before 20 strings per load).

§ 7. *Emperor Wen Chung (next to the last emperor), 1328-1332.*

REFERENCE: Ku Kin Tsi Pin Liu.

There was great famine in Kwan Chung (Shensi) covering an area of several hundred square lis. People either died or moved away; no one left.

REFERENCE: Yuan Book.

"In the *region of Shensi, etc., famine and hunger have been continuous* and those who have died from starvation litter the roads. Besides, it is just at the season between spring and winter, and the snow and rain have all missed their proper seasons. As a result the sprouts of wheat have died from lack of rain, and the autumn fields (rice fields, so called because rice is harvested in the autumn) have not yet been sown. All the people have become frightened, and the wandering and moving have increased to great numbers. Thus it is really

time that the government should take special pains to cut down all unnecessary expenditures."

At this time there were more than one hundred thousand wandering persons in the different divisions such as Shensi, Hotung (Shansi), Yennan (Chili) and Honan, etc.

REFERENCE: Huang Chen Kao Liu.

"At the present time whenever *one year lacks in harvest, the price of rice becomes extremely high, and the people lack sufficient food.* So we ought to provide normally constant granary in the true sense, not in name only."—Edict.

REFERENCE: Yuan Book.

500 chuans of government fields in Pin Kiang (Chehkiang?) were used to establish rice fields (wet fields).

§ 8. *Emperor Shen Ti (last emperor), 1333-1367 A. D.*

REFERENCE: Yuan Book.

Agricultural Administration.

One thousand volunteers acquainted with methods of wet fields and the building of enclosures, pond edges, etc., were enrolled from Kiangcheh (Kiangsu and Chehkiang), Wai Tung (east of the Wai River—Kiangsu), etc., as instructors to teach the people.

Auxiliary officers of agriculture were provided for different counties near the capital. Their duty was to devise methods of planting and to hire expert farmers from Kiangcheh, Wai Tung, etc., for the cultivation of wet fields and the building of enclosures and embankments.

At this time all the government land for the pasturing of horses was occupied by powerful and influential persons. Officers of agriculture were ordered by the emperor to call for volunteers to plow and cultivate the pasture land. Taxes and rent were to be collected every year, so as to defray national expenditures.

Government Relief.

There are altogether nineteen references to government relief under Shen Ti which tell of the government relieving the conditions due to flood, drought and disaster by the giving of provisions and supplies, issuing grain from the charity granary or asking contributions from individuals. Official positons were offered as rewards to those making donations. A Normally Constant Granary was established, officers were prohibited from forcing the people to buy salt (salt was a government monopoly, and a source of revenue), grains were sold at lowered prices for the maintenance of fair market quotations, wine-making was prohibited, and officers were ordered to conduct Free Exchange (Ho Ti) of millet and beans in Manchuria.

The specific instances of disasters mentioned are:

Flood disaster in the capital region (Chili); drought in Lin Shar (Kansauh) and Chehkiang; and famine in Ta Tung, Shensi, Ta Ming (Chili) and Shang Do. The one in Ta Tung must have been the most severe, as there is the statement that in this instance people became cannibals.

CHAPTER XII

Ming Dynasty, 1368-1643 A. D.

§ 1. *Ming Dynasty in general.*

Reference: Ming Government Records.

Areas of Cultivated Fields

	Tai Tso		*Show Chung*		*Sun Chung*	
	Chuans	Mows	Chuans	Mows	Chuans	Mows
Total Fields	8,507,623	68	6,228,858	81	7,013,976	28
Chehkiang	517,015	51	472,342	71	466,969	82
Kiangsi	431,186	01	402,352	46	401,151	
Peh Pin (Chili) ..	582,499		.....	..	.....	..
Hu Kwon ..... (Hunan & Hupeh)	2,202,175		2,236,128		2,216,199	
Fukien	146,259		135,166		124,225	
Shantung	724,035		542,929		617,498	
Shansi	418,642		390,809		368,039	
Honan	1,449,469		416,099		741,579	
Shensi	315,251		260,662		292,923	
Szechuen	112,032		107,869		134,827	
Kwongtung	237,340		72,324		256,855	
Kwongsi	102,203		107,848		94,020	
Yunnan	.....		3,631		17,993	
Kwai Chow	.....		.....		5,166	
Shen Tien Foo [1] ..	.....		67,720		99,582	
Yuan Pin Foo [1] ..	.....		14,844		18,339	
Bau Ting Foo [1] ..	.....		35,529		97,095	
Ho Chain Foo [1] ..	.....		24,200		82,872	
Jen Ding Foo [1] ..	.....		38,980		102,675	
Shen Der Foo [1] ..	.....		13,822		14,204	
Kwon Pin Foo [1] ..	.....		20,238		20,238	
Ta Ming Foo [1] ...	.....		51,993		56,196	
Yen Chin Chow [1] .	.....		1,059		1,059	
Bau On Chow [1] ..	.....		304		304	

[1] Chili.

Yen Tin Foo [2] ...	.....	69,974	69,405
Su Chow Foo [2] ...	98,506	155,249	92,959
Sn Kiang Foo [2] ...	51,322	47,156	42,477
Shan Chow Foo [2] .	79,731	61,262	64,255
Chen Kiang Foo [2].	38,452	32,722	33,817
Lu Chow Foo [3] ...	16,223	25,430	68,398
Fung Yang Foo [3] .	417,493	61,262	60,191
Wei An Foo [2]	193,330	101,073	130,826
Yang Chow Foo [2].	42,767	62,297	61,084
Hwei Chow Foo [3].	35,349	25,277	25,478
Liu Kuo Foo [3] ...	77,516	60,682	30,330
Tsi Chow Foo [3]...	22,844	8,919	9,089
Ti Pin Foo [3]	36,211	16,243	12,870
Au Chin Foo [3]....	21,029	21,890	21,905
Kwon Der Chow [2]	30,047	30,012	21,673
Hsu Chow [2]	28,341	15,404	20,167
Chu Chow [2]	3,150	2,912	2,809
Ho Chow [3]	4,252	11,891	6,215

General Discussion of Government Relief

REFERENCE: Collective Manuscripts of Show An: Record on Food and Commodities, chapter on Government Relief.

" However, we must commend the good systems of Tai Tso. During the sixteen reigns (16 emperors) and ***within 277 years*** (from beginning of Ming to Show An's time) ***there was no place which did not suffer flood, drought, disasters, etc.*** And there was no single year in which did not occur tax exemption and relief works. Even when it came to the end of the dynasty (Ming) when there was great confusion in military affairs, yet this policy (of relief and tax exemption) was not abolished.

"This was the reason why the strength of the people was able to stand the pressure although the taxes levied were very heavy (Ming Dynasty comes down to us as having levied extremely heavy taxes — perhaps heavier than any other dynasty; yet probably it was because the people were so poor at the time that they felt the taxes to be so heavy although in reality they were not heavier than those of other dynasties); and also why

[2] Kiangsu. [3] Anhwei.

the people (in Ming) were still loyal to the dynasty although the service imposed was so severe. There must be some reason why the Ming Dynasty was able to prolong its life and to increase the number of its generations." [1]

Discussions Descriptive of the Ming Conditions

REFERENCE: Encyclopedia: Agricultural Administration Department, Literature Series.

Ho Chow Shin's (born 1435) Views on the Tsing Tien.

Good administration always begins with King Kai (survey and marking of boundaries). If the King Kai are not corrected, the fields will have no definite owners (false claims) and the influential and strong will have their chance for "eating up." Moreover, taxation will have no definite system and the greedy and cruel will have the opportunity to take more than is their right. *Thus even though the government desires to talk of good administration, it will be simply a matter of form.*

[1] In fact, Ming was not especially long—277 years—whereas Chow was 800 years, Han 400, Tang 289, Sung 312 Yuan (in China) 90 years, etc. etc.

However, in every dynasty, except Yuan, there was always an ascending period, reaching golden age, then a period of gradual decline, whereas in Ming there was no golden age. The first emperor was considered the best in the dynasty; but his reign is by no means to be compared with the golden ages of the other dynasties from the viewpoint of Chinese historians. He was known to be cruel and severe, and not benign. Perhaps this was again not so much the fault of the man or government administration as of the economic conditions at the time due to soil depletion. As the Chinese proverb says: "No skillful housewife can make meals with no rice."

After the time of the first emperor, the Ming dynasty declined continuously, until overthrown.

Thus, although the Ming dynasty was not especially long on an absolute scale in comparison with the other dynasties, it held on a very long time considering the conditions, according to which it should have fallen long before it actually did.

Liu Tung Sen's (born 1586) Discussion on Limiting the Land Holdings and Equalizing Wealth.

At present (Ming) the people in the universe are poor to the extreme limit. Although the government is not in a position to distribute land and give resident houses to the people, shall it sit down and watch the greedy gentlemen, powerful persons and big brokers and merchants, seek for more land and ask for more resident houses without any limit whatsoever? It is obvious that the system of limiting land-holding (of past dynasties) may be imitated and adopted. . . . The influential people become richer and the small people become poorer every day. It is very pitiful. If only the government could set up a definite limit and regulation so that nobody would be able to buy land beyond a certain limit! Besides, regulate in regard to resident houses, clothes, food, number of slaves, etc., all *according to those regulations prescribed by the Ming Government.*

REFERENCE: Ming Wei Din.[1]

If this can be carried out, the small people will then also be able to have some land to enjoy provisions for the morning and evening, to have shelter, to plant mulberry and hemp, to have cloth to provide for clothes, and to have wives and children to support the aged. As a result the rich will not become too wealthy, and the poor will not become too destitute. . . . The best policy of government administration is to take care of the people, and this must begin with the limitation of land-holdings.

REFERENCE: Literature Series, Department of Agriculture and Mulberry.

Han Yu (Tang Dynasty, about middle) says: "The taxes

[1] Ming Wei Din in the exact translation is "The Institutes of Ming." Thus the regulations were usually written at the beginning of the dynasty to be corrected as time went on. There were many regulations in Chinese as well as in foreign history which were on record but which had never been enforced. The impression is that Ming failed to carry out many of its plans and systems, although it tried in many ways to remedy the situation at different times.

from Kiangnam amount to nine-tenths of those of the whole world." But now (Ming) the taxes from the two Chehs (Chehkiang) amount to nine-tenths of those of Kiangnam; while the taxes from Su, Sung, Sheng (Kiangsu), Char and Ha (Chehkiang), five districts, amount to nine-tenths of those of Two Chehs. At present the capital is located at Yen (Chili) and the rice transported from Kiangnam amounts to more than 4,000,000 loads, enough to support the capital. But the above five districts supply almost as much as half the amount of rice supplied by Kiangsi, Hu Kwong (Hupeh and Hunan) and South Chili (part of Kiangsu) provinces.

If the government does not administer it carefully, it is feared that *the fertile and rich soils will be changed into waste* and *idle land, as has happened in previous periods.* Then the condition of the world will be extremely bad.

REFERENCE: Literature Series, Government Relief Department.

Yang Poo (about 1400), Report to Emperor about "Preparedness Granary":

"Since the period of Hung Woo Reign (Emperor Tai Tso) even the *ponds and reservoirs which were already* built have been *invaded and occupied by powerful natives and great doors.* Some of them used these ponds and reservoirs (public) as their private ponds *for raising fish, and* others have *clogged them up and dried* these ponds and reservoirs to make *private fields for planting.* Up to the present time this kind of defects are especially prominent in the south."

Chow Chen (1380), Report to Emperor Requesting Establishment of Tsi Nong Chang (Granary for Relief of Farmers):

"Although the fields and land in the three counties such as Soo, Sung and Shang (Kiangsu) are fertile, yet the *farmers are having a very hard time.* . . . The 'eating up' *families* (large land holdings) *are increasing* in number *every day,* while those of the *farming class* are *decreasing every day* (large land holders not classified as farmers as they do not do farming themselves, although they own farms).

"Thus the *farmers are compelled to desert their original oc-*

cupation (farming) and become wandering hands or people of branch occupations (laborers or merchants) *thereby letting the fertile soils gradually become waste and weedy land.* Hence the benefit of soils is greatly reduced or cut short and the government revenue deficient." [1]

Wong Chih (1382), Narration about Tsi Non Chang (Granary for Farmers' Relief):

"At the *present time there is probably not a single place where there are no powerful and 'eating up' families.* Thus the people who are suffering the evils must be innumerable, and Soo Chow (Kiangsu) is not the only place which has suffered the conditions."'

Chin Kwai, Narration concerning the "Preparedness Granary":

"This year, both summer and autumn, there was great drought in all districts of Shehyu (Shensi), Shansi, Honan and Hopeh (Chili, Shansi and Honan) and consequently all the seeds sown cannot penetrate into the soil. All around within several thousand lis the hungry people eat one another. Those who are strong physically wander away and move to other places. The number who are dying on the roads cannot be counted."

Wong Sauh Ren, Report to the Emperor about Drought Disaster (Wong Sauh Ren, or Wong Yang Ming [1472-1528], was the greatest philosopher of Ming, as well as military and civil governor of Kiangsi):

"The People in *Kiangsi have also abolished their occupation of agriculture and are suffering the hardships of military services.* (Rebellion of Sun Hou which was ended by capture of leader.) As both the drought and rebellion happened at the same time even rich houses and great doors cannot escape the trouble of famine, how can we expect the inferior doors and the small people not to wander away and scatter to all the four corners, not to die and be buried in the ditches and trenches?

[1] Chow Chen here reverses the order of cause and effect, giving soil depletion as the result of land desertion instead of as its cause.

When people are driven by hunger and cold and suffering from tax exactions they *have to start uprising.* What shall we do to remedy the situation?"

Wong Sauh Ren, Report to the Emperor Criticising Himself on Account of Flood:

"There *has been a military famine* (famine due to military disturbance) *in Hu Shun* (*Hunan and Hupeh*) *for many years; and drought and flood in Ming Cheh* (*Fukien and Chehkiang*) *continues for many years.*

"The *military disturbances* are still going on *in the two Kwongs* (Kwongtung and Kwongsi) and the provisions to the southern regions (for military expedition to quench rebellion) become exhausted every day.

"It is said that along the north of Wai Hsu (north of Kiangsu and Anhwei) in *the region of Shantung and Honan* people have suffered *famine and hunger continuously.*

"*Judging from these conditions,* we realize that *there is no way to save the situation by ourselves* (government and people) and at the same time *our hope of any help from* any of our *neighbors* on the four sides has *also already gone.* Oh Heaven, who is responsible for the troubles?

"When I come to consider and meditate quietly by myself I feel my sin to be really too great (feels responsibility for hopeless condition)."

Tien Chiu, Report to Emperor Presenting Plan for Making up Deficiencies:

"In Chuentung (north Szechuen) the hungry who wander fill the roads, while in Szechuen thieves and robbers are rising in different districts. . . . When there is a famine year the people in Szechuen wander into the region of Kwaichow. . . . In this year the wanderers to Kwaichow are coming continuously on the roads, they are scattered full in the villages amounting to at least more than several 10,000. The number is even greater than that in the sixth year of the reign of Chen Der (Emperor Wu Chung, the tenth emperor)."

Tang Shen Tsi, Letter to Governor Yu Wu Chow of Sun An Emperor Shih Chung, eleventh emperor, reign Jar Tsin:

" There has been *continuous drought disaster every* year in the *districts and counties of the southeast.* In this present year the sprouts have not yet been entirely dried up. So it is still hopeful if we have the good fortune of rain. But if there is still no rain for a few more days, then there will be several hundred thousand lives which won't know where they are going to die."

The same author's Letter to Hsu Yang Tsi:

" From winter to spring, everywhere are found dead bodies in the ditches whenever one walks through the country; and exposed bodies are everywhere in sight."

May Kuo Jen (1573), Letter to Chin Shen Fung, Concerning Opening Treasuries to Prevent Famine:

" Even during New Year's Day, the villages are ruined without smoke (no cooking) and few are found walking on the roads. Recently those who have died of starvation are in full sight on the roads from town to town and market to market. Even in the neighborhood of city walls robberies take place openly, and from this we can imagine the condition in the territories far distant and at unfrequented places. It has never been expected that at such a period of prosperity (must say complimentary things in referring to their periods or other wise be arrested and punished) we should find such a condition of decay and desertion.

" When we want to take out grain from our own district we find that the district granaries are already empty. When we want to ask the county or provincial officers to transport grain to us, we find that the county and provincial treasuries are also empty. When we want to urge and induce the rich families to lend out their provisions we find that the villages and countries are also already empty (rich as well as poor are exhausted)."

Chow Hung, Discussion to Prepare for Famine and Stop Thieves and Robberies:

" When the country is rich and the people have plenty naturally good people are numerous. When the people are poor and the wealth exhausted, then mischief and bad doings occur very easily. . . . .

"At present at the east of Wu Tzu (Kiangsu, Anhwei, Kiangsi, Hupeh, Hunan) and along the neighborhood of Yangtze, also in near places such as Wen Loh (Honan) and at further distances such as Ming (Fukien) and Sauh (Szechuen) there have occurred famines and hunger very frequently and the red land (unproductive soil) runs a distance of 10,000 lis. Consequently here and there, at the mountain sides and on the water banks, there are always groups of lawless people who have gathered together and combined themselves or who are settled down but have been in uprisings at times. *All these conditions have never appeared in previous periods.* . . . .

" Instead of dying from starvation and hunger the people rather take the chance of rising against the government in order to prolong their lives for some mornings and evenings (a short time). Consequently some people will take up the farming poles from the field ground (literary allusion to Chen Sen at end of Chin Dynasty whose rebellion made the Han Dynasty) and cut the trees or woods (for weapons). As soon as one person starts the trouble, hundreds will follow his example. Finally the condition will become so confused and disturbed that it will not be possible to stop it."

Liu Tsin Weng (probably 1600), Narration about relief of Famine by the Chang Family:

" The *officers of Kiangnam* (*Kiangsu and Anhwei*) *have reported the unusual famine* (terrible). The Yangtze and the lakes have flooded over the places and the great *flood covers 1000 lis.*

" On the other hand, the *high land has become red soil* (unproductive) and it has missed the rain for three seasons (spring, summer, autumn). Consequently in the latter place, not an inch of grass has grown up, and one do of rice is worth as much as one gold circlet. *Every day there* are *several hundreds of men and women* who drop on the ground to *die of starvation.*"

Ma Mow Tsai (probably 1600), Report to Emperor Concerning Disaster and Abnormalities.

"I am a native of the district An Ser of Shensi. . . . During the eighth and ninth months the people tried picking up pond grass to use as food. The taste of it is bitter and very hard to swallow, and it is barely sufficient to prevent the people from dying. But after the tenth month all the pond was exhausted, and so the bark of trees was peeled off and used as food. Among all the trees the Yu is the best. Thus by mixing the Yu with other barks, the food obtained may also delay their dying. But when the end of the year came (twelfth month) the tree bark was also exhausted. So they have to dig pieces of rock from the mountains and use it as food. This kind of rock is known as Tsing Yeh (Green Leaves). It smells like fish and is rather delicate in taste. As soon as the people eat a little of this rock, they feel satisfied. But after a few days, their stomachs will swell and burst causing death. Some of those not willing to die by eating these rocks gather together to become thieves. And the one or two families who have a small amount of savings will be robbed by these thieves, so that nothing will be left after the robbery. And the district officers are unable to prevent these robberies."

§ 2. *Emperor Tai Tso (first emperor), 1368-1398 A. D.*

REFERENCE: Ku Kin Tsi Pin Liu, chapter on the Agricultural Administration of the Ming Dynasty.

The universe was directed to devote its attention to farming fields and water works and to build and restore reservoirs, lake edges, etc., for water works so as to store and drain water in order to prepare for the emergency of flood and drought.

People were taught to plant mulberry trees by the following method: In every Li, every 100 doors were to plant shoots on two mows of land, in the beginning all the doors to work together to carry weeds and wood to burn the ground. Then it is plowed. After three plowings, the shoots are planted, and when they grow to the height of three feet, they are ready for transplanting. In the first year, every hundred doors are to plant 200 trees, the next year, 400, and the third year, six hundred.

Water works at Kwangsi were established and the 36 embankments around the Ling Waterways built up by Ma Yuan (Restoration of the Han) were put in repair. The water was sufficient to irrigate 10,000 chuans of fields.

Sixty-four officers, one being Tsow Chin, were sent to Cheh Si (Chehkiang) to ascertain the amount of farming land.

Officers of " camp fields " were established for the purpose of inspecting dams and dykes and water works that they may store or drain in time. Consequently people on high land did not have to worry about drought, and those on low fields did not worry about flood. (Camp fields are different from soldier fields as the former hire laborers who are not always soldiers; but soldier farms do not usually hire laborers at all. There is also the distinction that camp fields are usually in the interior, and soldier fields on the borders.)

REFERENCE: Nong Chen Chuan Shu (The Thesaurus of Agriculture), Preface.

The Fish Scale Books (Yu Lien Tao Chen) were prepared at this time. Therefore all the boundaries of the farmers' fields were properly fixed. (Fish Scale Book is comparable to the " Doomsday Book ".)

Families of farmers were allowed to wear silk; and those of merchants were allowed to wear only cloth. And if a farming family has a member that is a merchant, it may not wear fine silks.

REFERENCE: Ming Wei Din.

Families owning fields of five to ten mows were required to plant mulberries, hemp and cotton for one half mow; those with more than ten mows to devote twice as much land to the purpose, etc. Those who did not follow the regulations were subject to punishment.

REFERENCE: Show An Lay Kao (The Collective Manuscripts of Show An).

During Emperor Tai Tso's reign altogether several million pieces of cloth and currency (pieces of silver) and more

than one million loads of rice were given for the relief of the people. Also tax exemptions were given in times innumerable.

REFERENCES: Show An Lay Kao; Ming Wei Din; Ta Cheng Ki; Ku Kin Tsi Pin Liu, etc.

In Northern China at this time most of the fields near the cities were left uncultivated; and these were given to people for cultivation. The scale of distribution was fifteen mows of regular land and two additional mows for vegetables to each person; but in the case of those with extra strength the land was given without limit. Exemption from tax and rent was given for three years.

At the beginning of Ming the land next to the city walls was considered superior land, and the farther away it was from the city walls the worse the quality of land. This was due to the fact that the population was scarce, many of the cities having been left ruined from the end of the Kin and the Yuan Dynasties. Consequently when people began to recultivate they preferred to work on land nearest to the cities before going farther away.

The Emperor Tai Tso also adopted the system of Tan Tien (Soldier Fields). Fifty mows were the smallest unit (probably one soldier was given one unit, though some of them no doubt received two units or 100 mows). Oxen and implements were given, also instruction about the planting of trees. At the beginning they were taxed one tou (one-tenth load) per year per mow; and afterwards they were to pay a tax of twelve loads per unit (50 mows, making 0.24 loads per mow).

Reign Hung Wu, third year.

The following edict was issued: "In the five counties, Su, Sung (Kiangsu), Hu, Hong and Jar (Chehkiang) the land is narrow (not enough for the population) and the population crowded. Consequently the small people (poor) in these places have no land, and have to pursue branch benefits (non-farming occupations). Besides they never secure sufficient food for themselves.

"On the other hand, in the region of Lin Hou,[1] my (emperor's) native country (Anhwei), many fields are uncultivated and much of the benefit of the soil has been left unutilized.

"So the government ought to order the people of the five counties (Kiangsu and Chehkiang), who are holding no land, to go to Lin Hou to carry on farming and cultivation. Whatever land they exploit and cultivate should become their permanent property, and moreover, the government is to supply them with oxen and seeds and is to give them passage by boats as well as supply them with provisions. They are to be exempted from the land tax for three years."

As a result of this edict, more than 4,000 doors were moved.[2]

Reign Hung Wu, twenty-first year:

Liu Kew Kao, officer of the agriculture department, reported to the emperor as follows:

"The practice of the ancients (previous dynasties) was to move the people from the narrow countries to the wide countries, and the idea was to utilize fully the benefit of the soil (leave no soil unutilized) and to secure permanent property (land property) for the people.

"At present, in the region of Hopeh (north of Yellow River —Chili and Western part of Shansi) many fields are left waste as the result of military disturbance, and the residential people are very scarce. On the other hand, in the region of Shantung and Shansi (part of present Shansi) the population is rapidly multiplying.

"So the government ought to move part of the population from the latter to the former so as to cultivate the waste land there. Thus, the land tax will be greatly increased and the problem of sufficient provision for the people will be solved."

[1] Same as Shao Twain. It is the place where the first emperor of Ming started his revolution against the Yuans. After the military disturbances the place naturally became largely depopulated.

[2] From Kiangsu and Chehkiang to Anhwei. The government gave thirty pieces (53 taels per piece) of silver to each family, and exempted them from both taxes and services for three years.

REFERENCES: Erh Tsi Loh (Manuscripts or Notes of Daily Knowledge) also Ku Kin Tsi Pin Liu, chapter on the Agricultural Administration of the Ming.

At the beginning of Ming, after the great disturbance at the end of Yuan Dynasty, there was a huge area of no man's land (deserted) in Honan and Shantung. So in the reign of Hung Wu, an edict was issued to the effect that any who could open and cultivate such waste land were to be allowed to take it as their permanent property, and they were to be exempted from taxes permanently.

At this time on account of the great amount of waste land, Fong Hsiao Yu, a great scholar, advanced the proposal to restore the system of Tsing Tien.

REFERENCES: Ta Cheng Ki (Great Government Record); also Continuation of Wen Tsiang Tung Kao; Ming Wei Din; and Ku Kin Tsi Pin Liu.

Same reign, 22nd year:

An edict was issued to the effect that those willing to move from Shansi to some parts of Honan and Shantung were to be given waste land for cultivation according to the number of adults.

An edict was also issued ordering people in Tsing, Yen and Ki-nan of Shantung (east Shantung) who either owned no land at all, or less than *300 mows* for five adults (each adult less than 100 mows) to go to Tung Chung (west Shantung) to cultivate waste land. (Those who have 300 mows of land for five adults were exempt: not all the adults were required to go, only some of them.)

Government Relief.

REFERENCE: Ming Wei Din.

The government investigated an actual disaster and gave exemption from taxes.

REFERENCE: Huang Chen Kau Liu (Brief Research on Government Relief).

Even during years of good harvest, exemption was given to places where the land was lean and the people poor.

§ 3. *Emperor Chen Tso (third emperor), 1403-1424 A. D.*

REFERENCE: Ta Cheng Ki (Great Government or Administration Records).

Farming implements were cast to be given to the people who had suffered from military disasters.

Adults at Shansi who owned no land were moved to cultivate land in Honan.

Liu Yin reported that the *harvest of soldier farms* (system invented in Han Dynasty of giving farms instead of payment to soldiers) *by one man was not sufficient to feed him for half a year.*

Oxen were given to the different soldier farms.

The suffering people at Ling Chang were ordered to open and cultivate waste land in the neighborhood of the Chang River.

The people of Chehkiang and Kiangsi presented good rice crops.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

People were ordered to *open the official lakes* to make lake fields.

The people of Chin and Lay counties (Shantung) were ordered to cultivate idle fields at Yen Chow (Shantung).

REFERENCE: Collective Manuscripts of Show An, Record of Food and Commodities, chapter on Government Relief.

During the reign of Emperor Chen Tso, Chen Yin (the censor at the time) says: "Recently the districts and counties of Honan suffered flood and drought; the local officers knew of the fact, but did not report it to the emperor or the high officials. Some officers even said that the rain and sunshine were all in proper season, and the rice crop was abundant and solid. But when envoys were sent to investigate the condi-

tions it was found that the harvest of the people had not been as much as forty or fifty per cent, in some cases less than ten per cent and that in others the people were forced to pick and collect grass and wood for food."

REFERENCE: Great Administration Record.

All the waste and leisure fields and also the wet fields in the counties of Char, Hu, Su, and Sun were exempted from taxes.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

The fields on the embankment at Ho Chow (Hunan ?) were increased, amounting to about 50,000 chuans, so as to prepare for the emergency of flood on the two lake fields at Mar Li (Hunan ?).

Reign Yuan Loh, eighth year:

Chen Yin, the General Imperial Censor, reported that Marquis Chang Shin occupied by force more than 7,000 mows of the lake fields (probably public) at Tan Yang (Kiangsu) and also government fields at Kiang Yin (also Kiangsu) and suggested that a warrant be issued against him. Then an edict was issued ordering the minister to look into the case.

Government Relief.

REFERENCE: Ming Wei Din.

The government established rules for distributing free provisions in Soo Sung (Kiangsu) which had suffered flood disaster. For every adult one do was given, and to every child from six to fourteen years, six sen was given. No provisions were given for children under five years of age. (*Note how much less than during the time of Emperor Tai Tso.*)

§ 4. *Emperor Ren Chung (Chow Huangti, fourth emperor), 1425 A. D.*

REFERENCE: Ku Kin Tsi Pin Liu, chapter on Agricultural Administration of Ming.

The emperor issued an edict ordering the officers to find out

accurately the fields left waste by the wandering and to exempt them from taxes.

Land was distributed to the people according to their mouths so as to provide for their regular occupation, and that everyone might be satisfied and happy with their occupations. *Then even though there be heroes* (capable of starting rebellion against the existing government) *it would be difficult for them to start any trouble.*

Since the First Han Dynasty had failed to carry out the policy of limiting land holding, *the differences in wealth among the people become greater and greater.* Lee Chang (Tang) wrote on Pin Fu—Equal Distribution of Taxes and Ling Suen (Sung Dynasty) wrote on Jun Pun—Correcting the Fundamentals; Cheng Tzu Yuan (Sung) thought that the Tsing Tien could be restored and Chu Shi (Sung) wished to remeasure the land to discover the hidden taxes. But all of them failed to carry out their ideas.

An edict was issued to the effect that lands rented from the government were to be taxed as fields of the people (probably meaning that no rent was charged).

People were directed to open and cultivate fields and gardens, to repair reservoirs and ponds, and to plant mulberry trees, etc.

REFERENCE: Tung Ki Hwai Jen, Complete Compilation of General Records.

Reign Huang Si, first year:

The government exempted the people in Wai Hsu (Kiangsu) and Shantung from the summer and autumn taxes.

§ 5. *Emperor Shen Chung or Siuen Chung (fifth emperor), 1426-1435 A. D.*

REFERENCE: Ming Ki Sze Pun Mou (The Alpha and Omega of Ming Records).

Oxen and farming implements were given to people to open waste and leisure fields.

REFERENCE: Ming Tung Din (Ming General Records).

Farming families were given money because of their hard work.

REFERENCE: Ku Kin Tsi Pin Liu, chapter on Agricultural Administration of Ming.

An edict was issued calling for the imitation of the measures of the first emperor of Ming with regard to planting of mulberry trees and opening and cultivation of waste fields without limit (to the maximum strength of the people).

"*Since the ancient time there has been no nation (dynasty) which did not enjoy a golden age when the people were rich and prosperous; while on the other hand there is no nation (dynasty or administration) which will not suffer downfall when the people are poor and suffering.*

"During the reign Hung Wu (first emperor of Ming) the universe was ordered to plant mulberry trees, but at present these have been cut down almost entirely. So people are hereby directed to plant them again in season.

"The people in Pei Chi (Chili) during the Hung Wu Reign were ordered to open and cultivate new fields according to the same rule as for the people in Shantung and Honan. *No matter how much they cultivated they were exempted from taxes.* Besides they were allowed to plant to their maximum strength without limit. The cities were peaceful and the villages thickly populated, and it was called the golden age."

REFERENCE: Record of Food and Commodities of Ming, chapter on Agriculture and Mulberry (Silk Culture).

An edict was issued ordering the repair of those ponds and reservoirs which in long years have either been broken down, and are thus rendered useless for storing or draining water; or else clogged up and useless for irrigation. Those which had been occupied by strong and influential people were to be returned to the government.

The rich were urged by the government to rent out seeds to the people.

REFERENCE: Great Administrative Records.

The Department of Agriculture was ordered to make clear the system of soldier farms to the people.

The emperor discussed with the near officials the method of taking care of the people without the restoration of the Tsing Tien.

The *plain and unoccupied land in Ta Tung* (Shansi) *yielded a harvest of* millet and wheat *after* their *plantation.*

Government Relief.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Reign Shen Der, first year: An edict was issued for all districts to fix their granaries to prepare for storage and savings.

REFERENCE: Kwong Tzu Pin Liu (Brief Record of Government Administration).

Same reign, same year: The government established the Tsai Nong Chang (Farmer-aiding Granary) in counties of Soo, Sung, etc.

Second year: The government issued rice freely from the Farmer-aiding Granary to relieve the great drought in Kiangnam (Kiangsu) and as *a result the people hardly realized that there was a famine.*

REFERENCE: Tung Ki Hwai Jen (Complete Compilation of General Records).

Third year: The wandering in Shansi were comforted and relieved with grain and the famine in Shin Chen District of Ling An County (Chehkiang) was relieved by grains from the Yu Pei Chang (Preparedness Granary—first established in Ming Period).

REFERENCE: Hongchow Fu Tzu (Record of Hongchow County—Chehkiang).

Fourth year: The government issued rice from the granary to relieve the famine in Woo Chain District of Ling An County.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Fifth year: Officers were ordered by edict to induce and urge the wandering and escaping to return to their original occupation, and to commend with imperial seal dispatches those who had aided to relieve the famine.

REFERENCE: Kiangnam Tung Tzu (General Record of Kiangnam).

Fifth year: There was misfortune and famine continuously for many years in Wai Nan (Anhwei) and Shantung and many people died from starvation.

Seventh year: The government exempted the flood sufferers in Soo and Sung from taxes.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

There were disaster and injuries in South Chili (Kiangsu), North Chili (Chili), Honan, Shantung, Shansi, etc. Tax exemption and excuse from back dues were given.

REFERENCE: Huang Chen Kao Liu (Brief Research on Government Relief).

Tenth year: There was an edict forbidding district officers to levy heavy taxes on the small people at the places of flood, disaster and injuries.

§ 6. *Emperor Yin Chung (sixth emperor), 1436-1449 A. D.*

REFERENCE: Ming Wei Din (The Government Record or The Institutes of Ming).

Reign Chen Tung.

First year: The government gave the waste land in Ho Jen (Chili) to the surrendered military officers from Mongolia, and the amount of land for each varied from 150 to 100 mows.

Ninth year: The government gave land varying from 250 to 100 mows to each of the barbarian military officers who had surrendered.

The government also gave fifty mows of land at Der Chow (or Te Chow, Shantung) to each of the northern barbarians

which had surrendered. They were to make provision for themselves (their living) by cultivation of such land.

§ 7. *Emperor Tai Chung*[1] (*after Yin Chung*).

REFERENCE: Ta Show Yen Yi Poo (Supplement to the Extension and Exposition of the "Great Learning"), chapter on the Administration of the People's Property.

1. Comments on Public Land Distribution of Northern Wei and Tang.

In my opinion the land limitation policy should not be *retroactive*. It should not limit the past (what people already possess) but should limit only the future (what they shall have). For instance if the government should adopt the limitation policy today, it would not raise any objection even if a person is holding as much as 50,000 mows, provided that he had it prior to January of this year. But from the first of January of this year, the land holding of every adult should be limited to one hundred mows. Those who are holding less than the limit shall be allowed to buy more land up to the limit; but those who are holding exactly one hundred mows for each adult, shall be allowed to sell their property that is above 100 mows. But if they buy any more property all their land property shall be confiscated. This system is what we might call the system of distribution of land according to the number of adults. If this system is adopted for several tens of years, the rich will thus have no right to buy any more land, and are on the other hand liable to sell out some of their property. Thus although we cannot restore the Tsing Tien System all of a sudden, yet the evil of "eating up" will disappear in a quiet way.

I am not sure whether this scheme will work or not; but I wish to suggest it to your majority, and wish your majority would consider it and give it to the minister to discuss and see whether such a scheme can be eventually adopted.

[1] At this time Yin Chung was held in captivity by the northern barbarians, so Tai Chung, the brother, succeeded to the throne.

2. Comment on the System of Tan Tien (Soldier Fields) under Emperor Hsiao Chung, second emperor of Southern Sung:

At present (Ming) the empire has been peaceful for a long time (no warfare), and the population has been rapidly multiplying. As a result *the strength of the soil is no longer sufficient* to supply the food for the whole population.[1]

Therefore the people in the whole empire, *south and north, all have been wandering* (desertion of land) and hunting everywhere for their food. The condition is especially aggravated in Kiang Yu.[2]

So the government ought to establish tents and stations all over the empire, wherever there is leisure (waste ?) land, so as to gather the wandering people to convert the waste (weedy) land into cultivated fields and to open and build up water-channels and reservoirs for the purpose of irrigation. When such schemes have been carried out successfully in the future, the help to the country will be very great.

§ 8. *Emperor Yin Chung.*[3]

REFERENCE: Ta Cheng Ki (Great Government Record).

Reign Tien Shen, eighth year:

The government confiscated the land property of Tsao Chi Chang, altogether 3,500 mows, and used it to establish the so-called Palace Farm (or Royal Farm). This was the origin of " Palace Farms."

REFERENCE: Ku Kin Tsi Pin Liu, chapter on Agricultural Administration of Ming.

Edict: District officers were ordered to encourage and teach farming in season. Should there be lazy persons leaving their

[1] That the condition of Ming was not due to warfare but to *insufficiency of the soil*, as he termed it.

[2] Along the low course of the Yangtze River, Kiangsi, Anhwei, etc.

[3] By this time, Emperor Yin Chung had returned from captivity and had once more succeeded to the throne, his supporters taking away the throne from his brother, Tai Chung, by force.

fields waste without cultivation, some other persons at the same place having an excess of adults and not enough fields were to be sent to cultivate.

In times of drought, low fields will receive full harvest, but high fields will suffer red soil (no production). In times of flood high fields will reap a fair harvest, but low fields will become vast swamps. *So it always requires land of several mows to receive the harvest of only one mow. This is the reason why* Yao and Shun adopted their intermixing methods, and why our ancestors (the first few emperors of Ming) *afterwards permitted the people to open and cultivate new fields, as many as they desired.*

During the reign of Hung Tsui, Marquis Chang Hor King (a relative of the Empress) owned several hundred chuans of fields given him by the emperor, and he wanted to combine more than 1000 chuans of fields near by. When he had obtained this, he asked to distribute the taxes of these fields among to the people's fields which were bearing no taxes. Chow King, the minister of the Agricultural Department, strongly objected.

REFERENCE: Ku Kin Tsi Pin Liu, chapter on Agricultural Administration of Ming.

Waterways in the districts at Chand Der, Honan, were fixed and built up.

All eating up by farming officials of the Imperial House and invasions and occupations of land by influential people were investigated and corrected.

The Labor Department was ordered to open the Pei Mow ditches at Woo Sung (near Shanghai) in order to drain the accumulated water and to supply the farming works.

10,000 chuans of people's fields in Fo Chen, Hsien Hsien (Honan ?), adjoined a farm belonging to the Crown Prince. The private servant of the Imperial House (in charge of these farms) wanted to occupy these people's fields. When Tsai Leng, an officer of the Agricultural Department, went to inspect them he obtained all the opinions of the resident people to trace all the original boundaries, and returned all the occupied fields to the people.

Chow Tsun says: "It is a sign of selfishness at the front of the universe when the emperor hides wealth and the imperial house has farms."

Till the reign of Chen Der, the court favorites ("Yin Sing") gained power, and the imperial farms began to be extensive. It covered and connected with different districts in more than 300 places, and consequently the places near the capital suffered greatly.

Di Wen, at the beginning of Char Tsing Reign says: "Since the reign of Chen Der, those great crooks have first taken some land and falsely called it swamp land, non-arable; then made friends with influential people, and reported to the emperor to establish imperial farms. Recently many people's fields are occupied by them, so these fields ought to be investigated in order to relieve the people from harm."

Fan Tze Tso, one of the six censors, and Chang Sze Yuan, a member of one of the six departments, with the governors, reported to the emperor saying: "At the beginning, the imperial farms established were not very large. During the Chen Der reign, they increased, amounting to 20,919 chuans, among them 20,229 chuans having been taken away from people's fields. Those crooks worked even for small benefit so as to flatter the influential families in the government and took people's property away so as to enrich their own families. This is really the accumulated defects of successive reigns, but it was at its worst during the Chen Der reign."

REFERENCE: Ming Government Records.

All the temples (Buddhist and Taoist) were ordered to return to the people the land and fields which had been bought since the Hung Woo reign (Emperor Tai Tso). The land bought by the temples during the Hung Woo reign was not required to be returned to the people.

All the abolished temples and waste land were distributed among those persons who owned no land.

For every door, the male adult was given 20 mows, and the doors having more than three male adults were given 30 mows.

When any of these doors became extinguished, the land was always to be distributed to some other poor persons and no one was allowed to sell or secure loans on these fields.

Edict: Any imperial relative discovered to have occupied people's fields by force, to be subjected to heavy punishment.

REFERENCE: Great Administrative Record.

At this time *there accumulated more than 4,700 chuans of waste* fields in Sun Kiang Foo. So Liu Tsi reported to the emperor requesting him to call volunteers to open and cultivate these fields. Regardless of the original quotation of the tax levied on the fields, all the fertile fields were taxed three do (one do equals one-tenth load) of rice per mow, and the lean fields two do per mow. No additional taxes were laid to make up any loss on the collection of these taxes. (Even in the Tsing Dynasty there were many kinds of extra taxes besides regular taxes for the purpose of making up losses on collection.) Consequently people were very happy to run to these fields to work, and all the weedy and dirty fields were opened and cultivated.

REFERENCE: Continuation Wen Tsiang Tung Kao.

Complaint of the Ta Show Sze,[1] Yang Sze Chi.

"In *the period of Yao and Tung* (Shang and Yin Dynasty) there were *also some flood and drought, but we never heard that the people at those periods ever suffered exhaustion and poverty.* Why? Because they had preparations. *At the beginning of our dynasty* (Ming) there *were definite systems to prepare for the emergency of famine,* and the government had been buying in grains and storing them up in the granaries in order to collect and distribute them at the proper times. Moreover, the government at that time had also been looking carefully into the geographical conditions, and had opened and

[1] This complaint was written during the fourth year of Reign Chen Tung of Emperor Yin Chung. The Ta Show Sze or Great Scholar was the name of an official post, and the position is perhaps the same as that ordinarily known as "Grand Secretary of the Emperor." Yang Sze Chi was the Ta Show Sze of that time.

connected ponds and reservoirs, and fixed and built up Hsu and Bar (fields and embankments) so as to prepare for any emergency of flood and drought. Thus the people at that time, great and small, rich and poor, were satisfied with their own occupations.[1] *However as the years went by for a long period, the defects of the system became more and more pronounced.* The powerful and shrewd have always tried to get the benefit and best advantage for themselves, and as a result, all the granaries have been destroyed and all the government grains have been used up. And all the benefits of the water works either have been clogged up and abolished or have been occupied and taken away by some powerful and shrewd individuals. So now if there is any disaster to the harvest, the people will have nothing to depend upon for making their livings.

"Therefore the government ought to make those districts and states with good years to contribute money to buy grain at fair prices in order to prepare for the emergency of famine. They are also required to build up and restore ponds, reservoirs, Hsu and Bar. In this way, we may hope that the government will have savings to prepare for the emergency of famine, and the people will thus have no trouble from flood and drought. Thus there is no other policy of good government administration which can be as great and important as this method."

Government Relief.

Reign Chen Tung.

REFERENCE: Hongchow Foo Tzu (Record of Hongchow County).

First year: The Old People's Granary was changed to the Preparedness Granary (Lau Ren Chang to Yu Pei Chang).

[1] These are the presumed conditions of early Ming according to Yang Sze Chi, and of course could not have been as good as presumed, although they were a hundred times better possibly than those of the later period of Ming, and possibly even better than those in the Yuan Dynasty.

REFERENCE: Ming Wei Din.

Second year: The government investigated into the number of wandering people from place to place. *Any wandering persons, who opposed the orders of the officer, or who refused to submit to the relief work of officers were subjected to capital punishment.*

REFERENCE: Tung Ki Wei Zen (Complete Compilation of General Record).

Third year: The states of Wai Yang had suffered disaster. Thus the price of rice went up and that of salt went down. Therefore the government transported rice to the places having salt works and let the salt workers exchange their salt for rice. (Wai Yang in Kiangsu is the place where salt is produced—same as today).

REFERENCE: Ming Wei Din.

Fourth year: An edict was issued establishing more assistant officers in the different divisions (provinces) to comfort and care for the wandering. The government also published rules for the relief of the poor who had suffered flood disaster and injuries; and to commend and encourage those who had given out their grain to help the government carry on the relief works.

REFERENCE: Huang Chen Kao Liu (Brief Research on Government Relief Works).

Officers were ordered to investigate and care for the waste land left by people without cultivation; and also to call for volunteers to cultivate the same.

The waste land belonging to the government is to be treated the same.

In the case of land without owners (neither private nor government) any persons were permitted to cultivate the same, to be exempted from taxes for three years and all the mulberry trees planted by them were to be permanently exempted from taxation.

All escaping and moving persons in the different places *were excused from government punishment* and were permitted to be naturalized in the places where they were, and to pay taxes as ordinary persons. Those willing to return to their original occupation, were to be exempted from taxes two years and *all the back dues of their taxes for all these years were entirely excused.*

REFERENCE: Ming Wei Din.

Fifth year: An edict was issued that all soldiers of the army stationed as farmers and deficient in food provisions due to flood and drought were to be relieved as civilians.

REFERENCE: Hongchow Foo Tzu.

In the three counties Hong, Jar and Hu, flood trouble had not been remedied, and the wandering and moving had not been returning to their homes. So Wong Yu carried out the work for the preparation for the emergency of famine in the three places.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Sixth year: The government gave out grain from the granary to relieve famine and commended and encouraged the persons who were public-spirited enough to help the government relief work.

REFERENCE: Kiangnam Tung Tzu.

Tenth year: The government exempted fourteen counties as Soo, Sung, Shang, Chen, etc. from taxes—they had suffered from flood disaster the year preceding the last.

Reign Tien Shen.

REFERENCE: Huang Chen Kao Liu.

First year: There was great famine in Shantung. The government issued silver from Tai Chang (Great Granary) equal to 40,000 taels to conduct relief.

REFERENCE: Ming Wei Din.

Eighth year: More officers were established in the counties like Chin Shung and Hanyang of Hupeh, to induce and comfort the wandering.

§ 9. *Emperor Hsien Chung (eighth emperor), 1465-1487 A. D.*

REFERENCE: Ming Wei Din.

Fields which were left behind by the wandering were distributed among the native doors in each district to cultivate and pay taxes accordingly. Those fields just opened in the high mountains and big valleys were exempted from taxes.

REFERENCE: Record of Food and Commodities of Ming, chapter on Agriculture and Mulberry.

The planting of special rice (for wine-making) was prohibited.

Five waterways at Ling Shar (Kansauh) were opened to irrigate 1,300 chuans of waste fields.

Two official ponds at Yee Young (Shensi ?) were restored to irrigate fields more than 20,000 chuans.

At the beginning of the reign they were established.

During the reign Hung Tzu and Chen Der they became gradually large and resulted in great harm.

REFERENCE: Great Administration Record.

The two waterways, Lun Saw (Dragon Head) and Chen Peh (built by Chen and Peh—both in Shensi?), were opened to irrigate 70,000 chuans of fields.

District officers were ordered by edict to give all the fields which had been occupied by force by the imperial relatives or by the imperial servants back to the people for their occupation.

Government Relief.

Reign Chen Hwa.

REFERENCE: Ming Wei Din.

First year: More officers were appointed to comfort and care for the wandering in Han Chung (Shensi).

Sixth year: Disaster and injuries in the capital were relieved. An edict ordered the officers to care and comfort with all possible means the wandering who were willing to return to their native places. For every mouth, three sen (one-hundredth load equals one sen) grain was given. Those having no dwellings in their native places were to be provided by the local officers with straw houses (four rooms for each family). Then without distinction every adult man or woman was given three do, and every small mouth 1.5 do. For every door, two oxen were given and seeds accordingly. The government made investigation of their original properties and permitted them to cultivate these fields and exempted them from taxes and service for five years.

Seventh year: An edict was issued to the effect that any wandering people who gathered together to do mischief were to be subjected to punishment accordingly.

REFERENCE: Huang Chen Kao Liu.

There was famine and hunger in the capital region (Chili) so the government issued one million loads of millet from the granary to sell at lower prices.

REFERENCE: Ming Wei Din.

Nineteenth year: There were disasters in Fung Yang County (Anhwei). The government exempted people from thirty per cent of the autumn taxes. The other seventy per cent were used to exchange for silver for storage in the government treasury in preparation for future military expenditures on the border (Manchus ?).

§ 10. *Emperor Hsiao or Show Chung (ninth emperor), 1488-1505 A. D.*

REFERENCE: Ming Record of Food and Commodities, chapter on Agriculture and Mulberry.

Everywhere the imperial farms preyed on the people. (People invariably suffered whenever they had anything to do with imperial farms.)

The imperial servants from the palace were sent out all over the universe, and they robbed the profits of the merchants, and injured the occupation of the farmers.

REFERENCE: Ming Wei Din.

All the princes in the different places were not allowed to buy any fields nor were they allowed to occupy the people's fields by force.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Officers in Szechuen had occupied some fields. So they were required to give out these fields and to distribute them to the soldiers who owned no land, for cultivation.

REFERENCE: Ming Wei Din.

All soldiers and civilians were permitted to report the occupied fields (to the government) and the officials and influential families who had forged government certificates of these fields so as to sell them or to get loans by using these fields as security were to be punished.

Government Relief.

Reign Hung Tzu.

REFERENCE: Ming Wei Din.

Second year: The government gave rice to relieve the flood disaster in the counties Shen Tien, etc. (Chili). Two loads of rice were given to each family that had members drowned (flood) and one load was given to each family whose dwelling or important animals were washed away.

Third year: Regulations for exempting the people who had suffered from disasters and injuries from taxes in grain and straw (for horses).

REFERENCE: Kiangnam Tung Tzu.

Fifth year: On account of flood exemption in taxes and grain was given the counties Soo, Sung, etc. Places which did not suffer from entire disaster were exempted from thirty per cent of taxes *permanently* from this year forward.

REFERENCE: Ming Wei Din.

Eighth year: Officers were appointed to comfort and take care of the wandering in Honan.

REFERENCE: Kiangnam Tung Tzu.

Tax exemption was given and silver from taxation at the Hsu Hsu Customs (interior customs) was used to conduct relief for flood disaster in Soo, Sung, Shang, Chen, etc.

REFERENCE: Ming Wei Din.

Tenth year: Officers were ordered by edict to use the government superfluous money to buy rice for storing in the Preparedness Granary.

Eleventh year: An edict was issued ordering immediate investigation of the places stricken by disaster and injuries.

Fourteenth year: Officers were ordered by edict to use the rice from the granary for relief work.

Seventeenth year: The rice in the Preparedness Granary at Liu Tung (Manchuria) was too old and became decayed, so an edict was issued to sell the same.

The government made investigation of the wandering at each place. Those who had lived sufficiently long at the places where found and were willing to go back to their original places were ordered to be naturalized and exempted from taxes and service for three years. Those wandering alone—without families—or those newly wandered—were to be sent back to their original homes. Officers were ordered to make actual reports to the emperor of all the conditions.

Eighteenth year: District and county officers were ordered to turn in the money from fines (punishment) to the granary in preparedness for the emergency of relief.

§ 11. *Emperor Shih Chung (or Sze Chung, eleventh emperor), 1522-1566 A. D.*

Wen Tsiang Tung Kao.

Reign Jar Tsin, 21st year:

Total Fields Cultivated:[1] 4,360,562 chuans 69.9 mows.

REFERENCE: Tu Shu Pein (Collection of Diagrams and Literature or Literature and Illustrations), Discussion on the Cultivation of (waste) Land in Shantung.[2]

"The region of Shantung occupied two of the nine states, Tsing and Yen, during the period of "Great Yu" (2258 B. C.) and the quality of the soil at that time ranked third for Tsing and sixth for Yen among the nine states.

"At the beginning of Chow Dynasty (1122 B. C.) Shantung occupied the feudal states, Chi and Lu, and, from the records of these two states, we know that the soil condition there was good at that time.

"During the period of Spring and Autumn, Shantung was still occupied by the states, Chi and Lu.[3] In this period,[4] Hwen Kung (Duke of Hwen), one of the feudal kings of State Chi, was enabled to establish for the first time the leadership of all the feudal states.[5] In order to secure some idea as to the soil condition of Shantung at that time, we may well quote one passage from Kwan Tzu, a pamphlet written by Kwan Chung, the prime minister to Hwen Kung of State Chi. It reads: 'The granary is *limitless*, while the treasury is *inexhaustible*.' Thus we know the soil condition at Shantung was quite good at that time.

[1] It is quite interesting to note the sharp decrease of cultivated fields between the time of Emperor Shih Chung and Hsiao Chung. This was the period in which the bad conditions — soil — of Ming became gradually more conspicuous.

[2] Although this reference concerns only Shantung instead of the whole of China, it gives a good picture of what happened in that particular section of China.

[3] Lu is the native state of Confucius.

[4] About 644 B. C., slightly before the period of Confucius.

[5] So-called Five Bars, five leaders or presidents of the league of the feudal states. There were altogether five of such leaders throughout the whole period of Spring and Autumn, and Hwen Kung of Chi was the first one to establish the league.

" In a later period (sometime before Ming), however, much of the benefit of the land has been left waste, and many fields have been left uncultivated. We wonder why. Some people venture to give the explanation that the land of Shantung is very near the Yellow River, or ocean, and consequently it is very salty, and the poor quality of its soil is really due to natural conditions (due to nature) rather than due to the fault of artificial causes. (Author means to point out that this explanation was incorrect.)

"At the beginning of our dynasty (Ming) all the leisure (waste) land in Shantung was opened free to any people for exploitation and cultivation, and they were *never to be subject to taxation.*

" During the reign of Jar Tsin (Emperor Shih Chung, Ming) the government gave oxen and seeds to the people (who were cultivating waste or leisure land in Shantung) but they were to pay land tax after three years.

" Now it is more than twenty years since the regulation was adopted in the reign of Jar Tsin, but the land in Shantung is just as much left waste as before. Why? There is a reason for it.

"As we all know, *no fertile land has ever been left waste,* and *all the land which has been left waste must have been exhausted.* When the *land is lean,* it *will require twice the* amount of *labor* in order *to secure half the harvest.* Therefore, even if the government allows an exemption of taxation for three years, *how can it pay* for people *to work on such land?* Therefore, although there was a government order for cultivation of waste land, yet very few of the people, even the wandering people, came out to take such an order, because they are afraid of having to pay the land tax afterwards.

" Very recently (author's time) the government discovered the reason why no people came to obey the government order, and so has changed the regulations. Those people who are working the waste land are now required to pay only three Sheng (each Sheng—one one-hundredth load) of grain per

year per mow of land, and they are exempted from any other land tax permanently on such land.

"As a result many wandering and strange people have come out to seek the government permission to cultivate waste land. So the government ought to make the order a permanent regulation for the sake of the policy."

REFERENCE: Ming Tung Din (Ming General Records), Report of Ho Tao.

The provisions of all people and the six armies are looked for from Kiangnam (Anhwei and Kiangsu). We must take caution to urge water works (the building of lakes, reservoirs, dams, etc.) in the north and to teach farmers to plant mulberries, etc., so as to have provisions even if transportation should be hindered by a shifting of the river or by a famine in the south.

REFERENCE: Ming Wei Din.

Anyone was allowed to open and cultivate waste fields along the borders and be exempted from taxes permanently.

Volunteers were called for to open and cultivate waste fields. At the end of each year, officers were required to report on doors, amount of waste fields cultivated, oxen, seeds, taxes, etc.

REFERENCE: Continuation of Wen Tsiang Tung Kao, Report of Shar Yen to the Emperor Complaining of Imperial Farms and Petitioning for their Abolishment.

"At the beginning of our Dynasty, we did not have any farming fields belonging to the imperial houses. Not until the eighth year of Tien Shen Reign, Emperor Yin Chung, did the government take some sandy land from the court favorite Chao Chi Chang at Ban Giao (the Wooden Bridge) Village of An Lo (Contentment) Section of Shen Yee District and fixed it as the farm for the royal palace. The original amount of this land was only 10 chuans and 13 mows. Shortly after this time, the imperial servant Chao Chi Chang occupied some land from soldiers and people amounting to 24 chuans and 87 mows. So

it made up a total of 35 chuans which was established as the farming fields of the royal palace. As we make a survey at this time, 40 chuans of additional land has been occupied from the people, making the total, 75 chuans. It is only a period of several years, and yet it is almost ten times as much as the original amount. From the example of this one place, we can infer that the other places must be more or less the same. So I (Shar Yen) request the government to abolish the names of 'royal farming fields' and 'farming fields of different palaces' (princes and princesses) so as to remove the evils of four generations (four emperors)."

The government took his advice (but it was not effectively carried out or else not in all places, as these farms were one of the fundamental causes of the downfall of the Mings).

The people in Peh Chi and Honan (north) were ordered by edict to establish wet fields (northerners usually only planted wheat, but the government was desirous of having some rice in the north).

REFERENCE: Ming General Record.

Ponds, reservoirs, lakes, embankments, etc. which could be used to store or drain water were fixed and connected at different places so as to irrigate the fields and to reduce the force of the current of the Yellow River.

REFERENCE: Continuation Wen Tsiang Tung Kao.

All the fields which had been spoiled by flood were exempted from taxes. People (volunteers) were to be called to cultivate these fields after the flood had subsided.

Total amount of fields, 4,360,562 chuans.

Special envoys to take charge of cultivation of fields at Hsu and Wei (Wei River, Kiangsu and Shantung) were appointed to comfort and to gather the wandering and moving in Wei, Yang, Hsu (Kiangsu) and Yen (Shantung), and to make these people work and cultivate the fields which had suffered disasters.

REFERENCE: Tung Ki Wei Zen (Complete Compilation of General Record).

Description of bad conditions:

The Chain Sze officer, Chi Tzu Nan, of Shensi . . . ninth year of reign.

" Since the middle of the seventh month (when early rice crops are supposed to be harvested) when I was traveling from *Hsu Ho* (*Anhwei*) *to Yunan* (*Honan*), I saw that the rice crop had been almost entirely eaten up by worms, especially in places such as Shen Si and Tsai Yin (Honan). When I passed through Tung Kwon (Shensi) I noticed that there was *no late rice crop left* (for harvest). The *wandering people filled the roads all over.* Once in a great while I met some persons who were harvesting something. Quite delighted I made inquiry but found that they were simply harvesting some poon (grass). There are two kinds of Poon, one called the Mein Poon (soft grass) and the other Tzu Poon (Thread Grass). *Both can be used to make noodles, and the hungry people have depended upon these grasses as food for five years already.* I tasted them myself, and found it to sting my mouth, upset my stomach, causing discomfort for days. Thus, how can we possibly describe all the bitter and exhausted conditions which the small people (poor) have to suffer."

Reign Jar Tsin.

REFERENCE: Ming Wei Din.

Second year: Various measures were used to relieve the disaster stricken places (disasters of flood, drought and worms).

Third year: Officers in different places were ordered to establish preparedness granaries, and they were either rewarded or punished according to the amount of grain they could store in them.

Sixth year: Returned wanderers were exempted from taxes and services for three years. No one was allowed to disturb the white unproductive land of the wanderers. In case of those willing to cultivate the same, they were to be exempted

from taxes and services three years, and afterwards, should it be productive, a very reasonable amount of taxes was levied according to the conditions.

Officers were promoted in their positions if they were able to secure volunteers to open waste land or to secure large numbers of wanderers to return to their original occupations.

Eighth year: All states and districts were ordered to store grains to prepare for the emergency of famine. The Charity Granary System was adopted.

All local officers were ordered to investigate the number of wandering, two or three do of grain to be given every adult, and one or two do given to every small mouth. All were ordered to return quickly to their original homes.

Provinces ordered to grasp opportunity of good year, to make investigation of wandering people in different districts.

Those having long residence and owning property in places found, permitted to be naturalized, and subjected to government service calls as ordinary people.

All the other wandering ordered to return to original places.

Those who because of crimes or mischief were in hiding under changed names in other districts outside their homes to be subjected to government punishment; local leaders may arrest and report the same. Rich or powerful families shielding or hiding such persons and failing to report them were subject to punishment according to government regulations.

Government encouraged and comforted the wandering, giving oxen, implements, seeds, etc., so as to make each satisfied with his occupation, and not permit them to lose their places for making their living.

Tenth year: Heavy disaster and injuries in Shensi. Government issued money from Tai Chang (Great Granary) for relief of people. District officers ordered to help and relieve by all means possible.

The stricken who had escaped to strange places were induced to return. Government gave them double amount of money for relief (double amount given to those at home). Also seeds and oxen given them.

All district officers ordered to take grain from Yu Pei Chang (Preparedness Granary) and *establish one rice soup hall* in each district. Those people coming to the hall permitted to come once in the morning and once in evening until time for harvest of wheat crop.

REFERENCE: Shansi Tung Tzu (General Record of Shansi).

When Han Bai Tsin was officer of Ta Tung (Shansi) there was hunger in the year, and *people ate one another.*

REFERENCE: Gee Foo Tung Tzu, General Record of Capital and its Suburbs—(Chili).

When Yen Kwon Tso was district officer of Chu Lo (Chili) there was great hunger that year, and the people ate one another. Thieves and robbers prevailed openly.

REFERENCE: Ming Wei Din.

All soldiers unable to get army provisions, or whose parents or wives and children were in need, may be relieved as ordinary civilians.

Worshipping money (offered by worshippers) from the temple on Tai Ho Mountain (Hupeh) and silver from the government treasury at Twain District (Hupeh) were issued to Hukwon (Hupeh and Hunan) for relief work.

An edict was issued that from henceforth all the balance after temple expenses have been deducted (of the *worshipping money*) was to *be stored and used* for purchasing grain *for the emergency* of famine.

People of disaster-stricken districts were only required to transport 70 per cent of grains as taxes to the government (Peking). The other 30 per cent was to be paid in silver equivalent—thus saving the trouble of transportation.

REFERENCE: Hongchow Foo Tzu.

There was a great famine in Chehchung (Chehkiang) and one do of rice was sold at 200 cash. Grain was issued from the Yu Pei Chang for relief.

§ 12. *Emperor Mun Chung (twelfth emperor), 1567-1572 A. D.*

REFERENCE: Continuation of Wen Tsiang Tung Kao.

Government officers were ordered to accumulate grain to prepare for relief work.

There were disaster and injuries in the different divisions (provinces) and the government issued silver and rice for relief. Partial tax exemption was given, and also silver equivalent was accepted for tax payment. The Governor of Shansi requested the emperor to establish the Normally Constant Granary, and the government also restored the local granaries (Ser Chang).

REFERENCE: Kwongtung Tung Tzu.

During the Reign Lung Chin, Chen Li was sent out as inspector for tax collections in Chehkiang, and he reported as follows: *The people of Cheh are suffering terribly and they are even too busy to save themselves from dying* (death from starvation).

§ 13. *Emperor Sun Chung (thirteenth emperor), 1573-1619 A. D.*

REFERENCE: Show An Lay Kao (Collective Manuscripts of Show An).
(Show An quotes the passage from the Ming Record of Food and Commodities, chapter on Agricultural Administration.)

Since the "palace farm" was established by Emperor Yin Chung and followed by Emperor Hsien Chung, it has increased from day to day. During the reign of Emperor Hsiao Chung there were five royal farms in the capital region (the country surrounding Chili, the capital) amounting to 1,280,000 mows and there were also 332 farms which were given by the emperor to the officials or court favorites, and which amounted to 3,310,000 mows.

From the time of Emperor Wu Chung (tenth Ming emperor) the situation has become worse. Within the capital

region there were more than 300 royal farms. Moreover, there were royal farms belonging to the different princes all over the empire. Some of the princes, as for instance, Prince Hwai, were holding "royal farms" of over 700,000 mows. So were some of the court favorites, such as Shen Chuan, Woo An, Chow Soo, Koo Yung, etc. Some of the land was given to them by the emperor, and some was stolen and occupied by force from the people.

During the rule of Emperor Sun Chung, land [1] amounting to four million mows was to be taken from Honan, Shantung and Hukwong and given to his favorite son, Prince Fu.

Emperor Shih Chung's time was the worst. The court favorites were strongly in power, and the government gave land to the princes or others *at will*. Some of the princes, princesses, etc., were each holding as much as one million mows of land.

The mass of the people were furious and desperate. Even assuming that there should have been a ruler, who was quite able, to succeed to the throne at such a period, it was impossible for him to improve the situation.

REFERENCE: Ming Wei Din.

Soldiers and civilians were allowed to receive and cultivate waste land in Shensi and Yenling (Shensi and Kansauh), and they were to be exempted from taxes permanently.

REFERENCE: Kuo Kin Tsi Pin Liu, chapter on Agricultural Administration of Ming.

There was no rain for a long time in the spring, so the emperor walked 20 lis to pray for rain.

Somebody says: "*Yen and Chow* (Chili, Shansi) *used to be called the fertile region in the ancient time, but now we have to transport grains from the Southwest* (Kiangsu, Anhwei, Kiangsi, Hupeh, Chehkiang, etc.) *for several thousands of lis*; and to give up the cultivatable (arable ?) land at

[1] Although the required amount of land was never obtained, on account, perhaps, of the physical impossibility, yet it shows the absurd conditions of the time.

three foos (three suburbs of the capital). As a result, we look and see the weeds all over the territory around the capital, and all the land along the seacoast has become swampy. *It shows that the benefit of the Northwest* (Chili, Shansi, Honan, Shantung, Shensi, etc.) *has been opened and utilized to the full extent.*

On the other hand the three Woos (Kiangsu, etc.) are the places we used to call the swampy countries, but now we have been collecting taxes very strictly in these places. Consequently the reservoirs are all clogged up without being fixed, and the dams broken down without being built up. It shows that the benefit of water of the Southeast has not been restored to the full extent. . . . The rich people are in a position to cultivate, but they don't care to work; while the poor wish to cultivate, but are short of oxen and seed. . . . Those who wear straw hats and coats (farmers) die on the road everywhere. They cut out their flesh to cure their pimples (for instance, borrowing money from speculators to make up their deficiency for paying debts) and finally have to sell their land and rent out their children.

Those families who gave up their homes and travel to do business, or who are imperial relatives wearing furs and jade, enjoy themselves in riding spirited things (horses, etc.), eating meat, wearing silk shoes and garments, etc. but they don't know anything about *the exhaustion of the soil in the fields.*

REFERENCE: Record of Food and Commodities of Ming; chapter on Agriculture and Mulberry.

Complaints of the People Against the Government.

But the people were employed by the government as oxen and horses and so suffered and grumbled. *Everywhere there arose troubles of riots.* The mind of the people was anxious from confusion. All over the four sides (of the universe) there were those who took up the farming poles as fighting implements (Chen Sun at the end of Chow rose from a farm and used his farming poles as a fighting implement) until the reign

of emperor Whi Chung who met the fate of the downfall of the Ming.

REFERENCE: Tung Ki Wei Zen (Complete Compilation of General Record).

Reign Men Li, seventh year: Comment of Chang Chu Chen: "*The wealth and strength of the people are limited. Even though the years are very good, yet the harvest of one year of* the people is *hardly sufficient to cover the necessary expenses of that year.* If unfortunately bad years occur, the people will be unable even to pay their regular taxes for that year; how can the government expect them to pay all the back dues of the accumulated taxes?"

Ninth year: Fu Chao Chow, the Nan Gee Sze (name of office), reports to emperor:

"The counties Wai Fung in Kiang Peh (Anhwei) have suffered disaster and injuries every year, and many of the people are deficient in food provisions. They are using even the bark of trees as food to keep themselves from starvation, and some have to gather together to become robbers and thieves."

The emperor asked: "Why is it that the counties Wai Fung have been reporting disaster and injuries every year?"

Chang Chu Chen answered: "*The land in these places has always consisted of more waste land than fertile.* And even the rebellions at the end of Yuan Dynasty originated in these places. So the government ought not to delay to relieve the people in these places in order to make them content (to prevent rebellion)." The emperor took his advice. But the conditions at this time had reached such a stage that simple government relief was not able to make for contentment, and the unrest eventually grew and shortly the Ming dynasty ended. Sun Chung, in fact, was the last emperor of Ming before the Manchus came.

REFERENCE: Continuation Wen Tsiang Tung Kao.

Twenty-second year: Report of Woo Tsung Li, censor of Fukien Division (Province):

"There was an over supply of rain last year, and all the places in *Shantung, Honan,* Hsu Wai (*Kiangsu and Anhwei*), etc., altogether about several thousand li square, suffered flood disaster bady. As a result there was no harvest of wheat in the summer nor any harvest of rice in the autumn. The territory of Yen (Shantung) is just next to that of Honan and Hsu Wai. So the people in this territory suffered the disaster especially.

"When I was coming yesterday from Shantung to the capital (Chili) I saw with my own eyes the people continuously wandering and scattering away from the south to the north (by this time the soil in south had become exhausted too, as well as in north).

"The people all looked very much dried up, no longer like human beings. Along the roads they are all selling their wives and children. Women of strong age can be exchanged only for one do of millet each; while boys of ten years can only be exchanged for several cash. Babies are being thrown away into ditches and waterways, and the old folks of gray hairs (parents) are deserted on the half ways. Those who have died from starvation are all over the country while thefts and robberies take place everywhere. On the roads there are many people who eat human flesh and all these conditions are really too terrible to be witnessed.

"Ever since the ancient time, there has been no exception but that every rebellion and confusion has always originated from the fact of the government losing the sympathy of the people. We must notice that the territory of Shantung is just next to the capital region (Chili) and the former serves as a kind of shield to the latter.

"At the present time, although the people are suffering, still they are anxiously looking forward for the government's favor to relieve them. Thus they are willing to suffer death (from starvation) rather than to start rebellion or confusion. However if the mind of the people should happen to lose its sympathy for the government then some shrewd and dishonorable fellows will grasp the opportunity to start the conflagration.

They will gather together, disobey orders and laws, and finally take up arms to openly fight the government. At that time can the government still lay the question aside without paying any attention to it simply because the treasury and granaries of the government are empty and exhausted? "

Government Relief.

Reign Men Li.

REFERENCE: Ming Wei Din.

Regulations were fixed in regard to the storage of grain in the districts of the different provinces. The governors were to fix the amount of grain which officers in each district ought to store and at the end of each year, officers were rewarded or punished according to the amount of grain they were able to store.

REFERENCE: Tung Ki Wei Zen (Complete Compilation of General Records).

There was a great flood in Soo Sung and the accumulated back taxes of the people in these counties amounted to 700,000 (taels of silver or loads of rice?).

Chang Chu Chen comments that *the wealth and strength of the people were limited,* for *even in good years, the harvest of one year was hardly sufficient to cover the necessary expenses of that year.* Therefore he pleads that the government exempt people from all back dues.

REFERENCE: Ming Wei Din.

All government grain distributed in relief was considered a regular government expense, and the people were excused from paying back these grains to the government.

All governors were required by edict to report the actual amount of stored grain in each granary.

REFERENCE: Kiangnam Tung Tzu.

The government left the custom taxes (internal) to the local places for relief purposes.

REFERENCE: Ming Wei Din.

Regulations were established in regard to the reporting of disasters, relief works, etc., by district officers.

The rich and poor were ordered to come together in disaster stricken places to discuss methods for conducting relief.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

There were large numbers of wandering and strange people in Hopeh and other provinces.

REFERENCE: Hongchow Foo Tzu.

The government punished persons who were forcing loans on the poor.

REFERENCE: Continuation of Wen Tsiang Tung Kao.

The government used 150,000 taels of silver to relieve Honan.

100,000 loads of grain were transported (from Kiangnam) to relieve the counties of Yu Ling, etc. (Honan).

150,000 loads of grain were transported to sell to the people at a fair price in Kiangpeh (Anhwei).

56,000 loads of rice and beans were used to relieve Shantung.

Woo Tsung Li, the censor of Fukien, reported that due to lack of rain the year preceding, all places in Shantung, Honan, Hsu, Wei (Kiangsu and Anhwei), etc., several thousand li square, suffered flood disaster badly. There was no harvest of wheat in the summer, as a result, nor was there rice in the autumn. Because of the report the emperor sent envoys and issued 50,500 taels for relief. (This amount is very little and shows the treasury must have been much exhausted at the time.)

REFERENCE: Huang Chen Kao Liu.

An edict was issued to retain 50,000 taels silver from the taxes in the four counties, Soo, Sung, Shang and Chen (Kiangsu) for relief.

The government gave 150,000 taels *silver from the salt taxes to* relieve the three counties Hong, Jar and Hu (Chehkiang).

The government retained half of the taxes in silver in Peh Chi (Chili), Shantung, Shansi and Honan; and gave it to the local officers for relief work.

There was a drought year, the people were hungry. The government gave 100,000 taels silver for relief.

§ 14. *Emperor Si Chung (fifteenth emperor), 1621-1627 A. D.*

Reign Tien Chi.

REFERENCE: Kwong Pin Tsi Liu (Brief Record on Government Administration).

Tsai Mow Der, an official, requested the emperor to adopt the Normally Constant Granary so as to increase the storage of grain; but the government failed to carry out his advice.

Since the Men Li Reign (Emperor Sun Chung) all the savings of the treasuries in the different counties and districts were taken over by the government and put into the emperor's private treasury. Consequently the Normally Constant Granary was abolished at this time.

CHAPTER XIII

Tsing Dynasty, 1644-1911 A. D.

§ 1. *Tsing, in general.*

Reference: Tsing Government Records of Cultivated Fields.

	Shih Tso 18th year (1661 A. D.)		*Sun Tso 24th year* (1686 A. D.)		
Total fields	5,493,576	chuans	6,078,430	chuans	
Chehkiang	452,216	"	448,565	"	
Kiangsi	444,303	"	451,610	"	
Peh Pin (Chili)	.....		.....		
Hu Kwon	793,353	"	681,341	"	(Peh, 542,418; Nan, 138,923)
Fukien	103,457	"	111,995	"	
Shantung	741,336	"	825,268	"	
Shansi	407,871	"	445,221	"	
Honan	383,403	"	572,106	"	
Shensi	373,285	"	394,236	"	(Si An, 291,149; Kun Chang, 103,087)
Szechuen	11,883	"	17,261	"	
Kwongtung	250,839	"	302,292	"	
Kwongsi	53,938	"	78,024	"	
Yunnan	52,115	"	64,817	"	
Kwaichow	10,743	"	9,597	"	
Chili—					
Shen Tien Foo	47,493	"	60,272	"	
Yuan Pin Foo	13,877	"	18,666	"	
Bau Ting Foo	48,072	"	51,868	"	
Ho Chain Foo	76,509	"	87,600	"	
Jen Ding Foo	113,269	"	126,489	"	
Shen Der Foo	45,344	"	52,270	"	
Kwon Pin Foo	57,182	"	63,091	"	
Ta Ming Foo	56,507	"	79,694	"	
Yen Chin Chow....	992	"	743	"	
Bau On Chow	1,523	"	2,747	"	

Manchuria—					
Fung Tien Foo	553	"	1,819	"	
Chin Chow	56	"	1,298	"	
Kiangnam	953,445	"	1,029,427	"	(Anhwei, 354,274; Kiangsu, 675,153)

Tan Tien (Soldiers' Farms)	307,872 chuans [1]
Tan Tien taxes in silver	428,503 taels
Tan Tien taxes in crops	820,785 loads
Adults working in Tan Tien	334,458
Taxes on adults in Tan Tien	75,161 taels

§ 2. *Emperor Shih Tso (Shen Tsi, first emperor), 1644-1661 A. D.*

REFERENCE: Ta Tsing Wei Din (Tsing Government Record).

All the wandering families in the capital were exempted from taxes and service for three years.

All those whose dwelling houses were partly occupied by others (by the wandering) were exempted from half the taxes.

All the fields trodden by government soldiers were exempted from half of the taxes for one year.

All the extra and additional taxes in the Ming Dynasty were exempted.

The waste fields in the different places, which were not owned by anyone, were distributed and given to the wandering people and also to the government soldiers who were cultivating fields owned by others. The government gave oxen and seeds; and also tax exemption for *three* years.

Five years later, the rule was changed to tax exemption for *six* years; and emphasis put on the fact that the wandering may be either at their native or strange places. These fields were granted by government seal certificates as their permanent properties.

Waste lands having no owners were exempted from taxes.

On account of the fact that people in Shantung were just returning to their occupation, they were exempted from half of the taxes for half a year.

[1] One adult of Tan Tien received on the average about 100 mows.

All persons and families in the territory of the pasture land (Mongolia, North of Chili and Shansi) which had suffered disasters were given one do (one-tenth load) rice each month for every person.

In Chang Jar Kao (Chili) actual rice was given, while in Koo Peh Kao (Inner Mongolia or Northern Chili) silver equivalent was given.

Pursuant to the request of officials, the emperor ordered to be measured and converted into pasture ground for horses, 24,474 shang of waste land in the following five places: Shen Yi, Tsing Ho, Koo Hsien, Sar Ho, Lo Go Chao (district around Peking); and also land along both the banks of the Tung Chow River, Sar River (Sandy River), Lo Go Bridge, each place to be five li long and five li wide. (Most likely the pastures were for the officials or the government.)

The emperor also ordered that hereafter no more waste land be converted into horse pasture, but the sandy land which could not be cultivated was to be retained for such use.

The enclosing and occupying of houses and fields of the people (by government officials or powerful and rich persons) were stopped permanently from that time.

Fields were surveyed and measured.

All wandering people from other provinces, naturalized for a long period, will be subjected to service as natives. Those newly naturalized will be subjected in five years.

Manchurians, officers and wealthy individuals who contribute sums for the care of the poor will be given offices.

District officers who cared for wandering people in numbers from one to five thousand will be promoted: Governors to be honored according to the total number of wandering people taken care of in their provinces.

Fields and land were again surveyed, and all officers who had induced people to open and cultivate fields were rewarded according to their merits. Regulations were fixed for these rewards, and also for punishment of those who had left their fields uncultivated.

Fan fields [1] were surveyed and remeasured in the same scale as the fields of the people.

Soldiers were allowed to exploit and cultivate unoccupied land on the different borders within the Cao (i. e., south of the Cao of the Chang Family—Chang Char Cao). But they were not allowed to go to cultivate the pasture land outside the Cao (north of it).

All those convicted of crime and sentenced to exile were ordered to cultivate waste land. When they finished the work of cultivation they were to be relieved and freed. Should they desire to stay on these fields, such were to be their permanent properties.

Pasture grounds for royal princes were limited to two li square; and those for princes of imperial relations to one li square. None were allowed to occupy more than the amount prescribed.

All wandering people having no place of naturalization nor occupation, but becoming vagabonds, were not allowed to stay in the capital. All the officers, Manchu and Chinese, were to investigate every door to find out such persons and force them to return to their native places.

Wandering people from Chen Ding District in Szechuen, anxious to go back were to be taken care of by the district officers in Kweichow Province. All custom houses were ordered not to prevent them from passing, but to let them go cheerfully.

Governors were ordered to ascertain accurately concerning the people of the coast Kiangnam (Kiangsu and Anhwei), Chehkiang, Fukien and Kwantung, who have moved to the interior in order to give them houses and fields immediately so that they would stay and be satisfied. Governors were to do this duty personally and not through appointed subordinates.

[1] Fan Fields are fields owned by imperial relatives and under the control of the court favorites of the Ming Dynasty in Shantung. They used 540 pu in one mow, whereas in ordinary fields 240 pu made one mow. The taxes on those fields were twice those on ordinary fields (480 pu tax for 540 pu) but were in reality still less than those on the peoples' fields. Hence the remeasurement on the 240 pu scale.

REFERENCE: Huang Chow Wen Tsiang Tung Kao (General Researches on Literature and Authorities of the Tsing Dynasty), Book on Land and Taxation, chapter on "Water Benefit."

Edict, Shen Tsi Reign, eleventh year: The territory of the Southeast is the land on record for wealth and taxation, and it has usually been considered a land of good fertility. But in recent years there have been disasters of flood and drought year after year, and the people are suffering and exhausted. This is all due to the people failing to attend to their "water benefits," and consequently many farming works have been neglected. So all the governors (viceroys) are ordered to direct their local officers to study conditions thoroughly and to connect and restore their "water benefit" so as to be able to store and drain water at proper times. In this way perhaps we may expect that there will be no danger of flood and drought, and the people will be benefited.

§ 3. *Emperor Sun Tso (Kong Si or Kanghi, second emperor), 1662-1728 A. D.*

Agricultural Administration.

REFERENCE: Tsing Government Records.

Emperor Sun Tso continued the policy of Shih Tso in the encouragement of the opening of fields and the frequent surveying and measuring of the land.

The exemption of newly cultivated waste land varied thus: in the eleventh year, it was for six years; in the twelfth, ten years; and in the eighteenth, it was again six years.

During the first year volunteers were called *to cultivate pasture land outside of the city of Yu Lin*, amounting to sixteen chuans and thirty-six mows.

Edict, eighth year: Since the beginning of Tsing, some land of the people was enclosed and given by the government to the Manchus. Consequently the people lost their properties and had no means to provide themselves with clothing and food. They have wandered away, leaving their homes, suffer-

ing and enduring extreme conditions. It is deeply pitiful, and hereafter no more land of the people is to be enclosed and occupied.

During the sixth year of Kanghi waste land in Kiangnam (Kiangsu and Anhwei), Chehkiang, Kiangsi, Shantung and Honan was given to the surrendered soldiers. Each soldier received fifty mows, and was to pay a tax after three years. As the families of the surrendered soldiers were usually large ones the following order was issued in the year following: "A family having five mouths is to receive fifty additional mows (100 mows altogether for a family with five persons); and a family with less than five mouths is to receive ten additional mows (sixty mows altogether for a family of less than five persons)."

In the twenty-second year record is made of the total Sher Tien or educational land (for the salary of educational officers, also for subsidizing scholars, etc.) and it was found to be 4,717 chuans. The rent collected in silver amounted to 22,666 taels; in crops, 17,197 loads; in copper money, 41,-313 cash.

In the twenty-fourth year record was made of the total number of cultivated fields, and of the amount for the different states. (See table.)

During the forty-sixth year the government paid much attention to the question of water benefit as is evidenced by the edicts issued.

An edict discussing the impracticability of building up waterways in the *northern part of China*:

It sounds well to say we ought to build up the waterways in the northern part of China; but when it comes to the actual doing, it is absolutely impractical. If we are going to use the regular income of land taxation in opening and building up ditches and waterways, we *will have to spend a tremendous amount of money.*

Besides we *have to destroy the cultivated fields of the people* to connect the courses of the water currents. How can

we expect the small people (poor) to be willing to let their fields be destroyed and spoiled?

Even in the south, where there are ponds and reservoirs to control the inflow and outflow of the water course, yet when the rain is not in proper season, there is the danger of disasters. So the situation in the north must be still worse.

During the present uneventful days (everything going smoothly, nothing particularly bad, (disasters, famine, rebellions, etc.) *we should not try to do new things* (different from the old practice and tradition) *so as not to put the people under a severe burden.*

An edict for fixing the water benefit for emergency in farming, in Kiangnam (Kiangsu and Anhwei) and Chehkiang.

In *Kiangnam and Chehkiang, the population multiplies quickly.* The *land is the same* as before (no increase) *but the people who depend on this* land for provisions *become more and more every day.*

The climate, weather, air and adaptability of the soils for cultivation in these places (*Kiangnam and Chehkiang*) are *entirely different from those in the northwestern part of China* (Honan, Shantung, Shensi, Shansi, Chili, Kansauh, etc.). . . . Generally people depend upon the fields for their livelihood, and the fields in turn depend upon irrigation to supply their immediate wants (water benefits). *So unless we fix and establish the water benefit,* and build up dikes and dams so as to store the water for irrigating the fields, *we shall have no preparation for emergencies in farming affairs.*

In the counties Su Chow, Sun Kiang, Shau Chow, Chen Kiang of Kiangnam Province (Kiangsu); and in the counties Hongchow, Jar Shin and Hu Chow of Chehkiang province, the fields are either near to Tai Hu (Great Lake) or connected with the morning and evening tides (Si, evening, Chao, morning tide) of the sea. So at the mouths of the rivers and waterways we ought to build up dikes and dams at different and suitable localities, so as to open and close them at any time. When the water is superfluous, they may drain it, and when the water is insufficient, they may store the same. In case

there are branch rivers, ditches and swamps which are muddy and shallow (in Kiangnam and Chehkiang) we ought to repair and connect them at the same time, so as to conduct the water in all directions. Besides, dikes and dams may be built up at these places to help the irrigation.

After all these works have been carried out for a long period, we shall have no danger of suffering either flood or drought either in high (dry) or in low (wet) fields. All these works have nothing to do with the course of transportation but they are very beneficial to the people in earning their livelihood.[1]

Concerning Wandering People.

Reference: Tsing Government Records.

Third year: Wandering people from Szechuen staying in other provinces were to be sent back by each governor. The governor of Szechuen was to give each returning person definite provision, boat and carriage (transportation) and provide officers for protection en route.

Fourth year: Retired officers staying in other provinces were forced to go back to their original districts. If the officers had died, the children who have taxable field lands and are naturalized in the new place, will be permitted either to remain or to go back to their old places.

Fifth year: If any local officer finds wandering persons whose original place is not clearly known, he is to find out the place and force them to return to it.

Seventh year: All officers who are able, to contribute money for the removal of wanderers in Szechuen[2] back to their original districts are to be promoted in rank. Those able to

[1] The Grand Canal from south (Yangtze) to north (point of intersection of the Yellow and Wei rivers) built by Sui Yangti is the course of transportation, especially for grains accruing from land taxation in the south, ever since it was built up to very recent times. It is perhaps only during the last fifty or sixty years that sea transportation has been safe and convenient.

[2] In the end of Ming, Szechuen had a very cruel governor who killed and terribly persecuted the people there. Hence they wandered out.

remove 100 wanderers are to be recorded and honored once; and above 400, raised one rank; 600, three ranks; 700, to be promoted in office.

The returning are to be taken care of by local officers so that they will be contented and live by means of their occupation.

Thirteenth year: District officers who induced people to return to their original districts were to be given the same reward as for having attracted wandering people from other provinces.

Twenty-fourth year: The total number of adults in all provinces was 23,417,448.

Twenty-fifth year: Officers are ordered to repair the station for the shelter of the wanderers in Wu Chen (the five cities).

Twenty-sixth year: Even now there are wandering persons who have not returned to such places as Si An (Shensi). The two departments (Administration and Agriculture) are ordered to find out how many families have been induced in Si An, etc., to return to their original occupation; to help the same by giving oxen, seeds, etc., so that they can cultivate and harvest. All officers who have done this are to be rewarded.

Forty-sixth year: Many people from Fukien, now staying in Formosa have lately suffered from many floods and famines. There is no harvest in rice and grains. The natives (Formosa) may still go out to pick up and hunt for the means of livelihood, but those interior people (from Fukien) when in lack of food, have great difficulty in making a living there. However they are powerless to cross the ocean to go back to their original places. These are pitiful conditions. Local officers are ordered to find those who are willing to go back to their native places and have them taken back in the official boats.

Fifty-first year: Census:

Number of adult mouths	24,985,040
Silver to be taxed	2,295,106 taels
Rice and beans to be taxed	23,766 loads.

All the governors are ordered to use the number of adults both new and old in the fiftieth year as the standard number for the tax roll of the future. No tax will be imposed on the new population of the future (i. e., on the increase).

REFERENCE: Encyclopedia, Agriculture, Economic Series; Government Records of Tsing.

Edicts:

Seventeenth year, sixth month: The weather is very hot and dry, and there are few rains during the hot summer. Consequently the rice crops get dry. So we ought to be worried about farming.

Eigtheenth year, third month, twenty-sixth day: It is already summer; the weather is very hot and dry. Farming affairs are just on the verge of being very busy, yet there is no rain. So we are worried lest both the wheat and rice will not grow in their seasons.

Eighteenth year, fourth month, tenth day: It is now summer time, there is no rain, and it has been dry for a long time. Wheat crops are being injured. Moreover the fall crop has not yet been sown, so we ought to be worried about farming.

Nineteenth year, fourth month, eleventh day: Generally it requires frequent rains, before a good harvest in the fall can be expected. But we have had no rain or snow since last winter. Now it is already summer, yet good rain is still lacking. This long dryness injures the wheat crop. Besides, the fall crop has not yet been sown, so we ought to be worried about farming.

Moreover many people who have lost their occupation are suffering hunger, wandering and leaving their homes. It is especially to be regretted.

Twentieth year, fourth month: Around the neighborhood of the capital it is very dry and hot. So we ought to be worried about farming.

Twenty-first year, twelfth month: Generally it requires a season of frequent rain and snow before the spring plowing can be expected in time and the harvest can be expected to be good. In this year we have had no snow since the beginning of winter, and it has been dry for a long while. So the weather misses its season and the areas of fields are very dry. So we are afraid that it will be injurious for the coming spring work.

Twenty-third year: The *productions of the people in the country are barely sufficient to supply their daily living expenses.* The price of rice gradually increases, and it becomes hard for people to get provisions. It is also said that in Honan there is a famine. Everywhere people are suffering from hunger and the small people have no means of making a living. *So they are in danger of the fate of wandering and moving and losing their places.*

Twenty-eighth year, fifth month: It is already mid-summer, yet we have not had sufficient rain. So we ought to be worried about farming.

Twenty-eighth year, sixth month: From spring to summer all the rains have missed their season.

Thirtieth year: Edict: *People and officers expert on farming* affairs are to be chosen and *sent outside of the borders* (northern), along with seeds, plows, other implements, oxen, etc., *to open and cultivate new fields.* The four kinds of crops: millet, big wheat, oil wheat and spring wheat, may be planted there. But more millet and less spring wheat ought to be planted.

Thirty-fourth year, sixth month: It has been raining for a long time at short intervals. This may be injurious to farming.

Thirty-sixth year: Only in the north do people depend on the Yellow River for irrigation. To open waterways for irrigating fields is beneficial for the crops.

Thirty-ninth year: In every province, the *rain has been in season.* So the fall harvest is very good.

Forty-fourth year: In the east and west, and in the north and south, the geographical conditions and the quality of water and soils are all different.

The cultivation of grain, mulberry, hemp and cotton must be each adapted to the soil condition, and not changed or moved by artificial forces.

For every five mows of fields two mulberry trees are to be planted; and for every 100 mows of fields, 40 mulberry trees are to be planted. . . .

Small people only follow the course of benefit. Whenever there is an advantage, even laws cannot prevent them from following the same; but if there is no benefit they will not follow even if directed strictly by all sorts of devices (shows government theory in law making).

Government Relief Work.

REFERENCE: Ta Tsing Wei Din (except in the case of passages marked "edicts").

Fourth year: People were required to report their disastrous conditions to the government, so that it could send officers for investigation before conducting relief.

The government exempted the unfortunate doors in Shansi from taxes. It also exempted people in all the provinces from all the back dues of taxation.

Eighth year: *The regulations for rewarding governors* of different provinces who were *able to contribute money to help relief work were abolished.*

Ninth year, edict: "The territory of *Wai Yang* (Kiangsu and Anhwei) *has not had a good harvest for many years*; and *it is suffering an unusual flood disaster* this year. Both the Yellow and the Wei Rivers are rising, and the embankments have been broken down. Many houses of the people have been flooded by water. The summer wheat yielded no harvest (the water came before the harvest of wheat). Although the autumn rice has been sown, on account of the high water, it has not been cultivated. Consequently the people have lost the means of making their living. So we ought to let the people report their disastrous conditions, to investigate after they report, and relieve them after investigation. We also ought to discuss the method of exempting the people from part of the taxes according to their conditions."

Same year: There were drought, flood and worms on the land planted with indigo plants. The textile and dyeing companies were exempted from paying taxes on indigo.

Tenth year, edict: According to the report of Shen Tar Hai,

the Noun Chung of Kiangnam (Kiangsu), the territory of Wei and Wei Yang are still suffering from flood troubles; and the people in this region are still suffering famine and hunger and are still wandering and deserting their homes. Although the government did conduct relief some time ago, yet the people still have no means to obtain their food. They are poor and exhausted in the extreme. So the government ought to relieve them.

Same year: People in Wei Yang were relieved. Five do of rice were given to every adult, and half this amount to every child between six and ten years.

Eleventh year: Flood and drought have been occurring continuously for many years in Kiangnam (Kiangsu and Anhwei) and the disaster and injuries weigh heavily on the people. The conditions in this territory are different from those in other provinces, so the government ought to excuse this territory alone from all the back taxes.

Sixteenth year: There were continuously famine and rebellion (small uprisings) in Shensi. So the people there were exempted from part of the taxes for the fifteenth year according to their conditions.

Eighteenth year, edict: "*Recently due to the fact that the small people do not understand* the *principle of saving,* and waste just as much as they can, in the provinces of *Shantung and Honan whenever there is any bad year* the people *have to wander away and desert their homes because of famine and hunger.* Although the government has tried tax exemption and relief work, and to use all means to comfort and help the disaster-stricken, they still have very difficult times to make their living. So the government ought to urge the small people to work hard on the farms, to cut down unnecessary expenses and to save rice and provisions as much as possible. Thus we may hope that the people will get enough provisions to support their parents and children, and will also have some preparation for the emergency of famine and bad years."

Nineteenth year, edict: "*Recently the year again has been*

one of no harvest, and *many* of the *hungry people hunting for food have come to stay* together *at the capital.* This is the *reason why the government has increased* the *number of free rice-soup houses at the capital. But people from the four corners who have lost their own occupations are coming to the capital continuously* and they keep on *increasing more and more. Thus the relief work at the capital* has *unexpectedly made the people wander away and desert their homes* (come to the capital for food) *and on the road there are dangers of starvation.* So the government ought to devise some means to make all these people go back to their original places, and let them have some means of making their livings. *All the local officers are ordered to relieve and help the poor in each place, so as not to let them wander away and desert their homes.*

Twentieth year, edict: Since last year, the territory of Ta Tung (north of Shansi) has suffered famine and hunger, and the people have no food. So they have to wander away and desert their homes. The government has already tried to relieve them, and they have also been exempted from the house taxes (for dwellings). The idea of the government was to make the small people come back together in complete families (no scattering of members) so that they would not lose their original occupations. But up to the present there are still many people who have wandered away and escaped, and many of the fields are still deserted and barren. They even have no resources to carry on their work of sowing and cultivation. What can they depend on to get provision for food and clothes? So the government ought to exempt all these people from regular taxes and also from all the accumulated back dues. We must know that the small people have already suffered exhaustion to the limit of endurance. So it is possible that these exemptions of taxes and back dues alone may not be sufficient to relieve them for the immediate needs. Thus, besides these exemptions, if there are other methods or devices which may be adopted to save the disaster-stricken people promptly, so as to make them able to live, the officers of the Department of Agriculture are ordered to think them over thoroughly and to report them to me (emperor) as soon as possible.

Same year: The government exempted all the provinces from all back taxes from the seventh to the seventeenth year.

Twenty-third year, edict: In the territory of Kau Yew, Bau Yin, etc., the fields and dwellings of the people have been flooded (north of Kiangsu). It is due to the fact that the waterways for conducting the water current from the lakes to the seacoast have on account of long years been clogged up and stopped by sand and mud. So if we can connect these original waterways to the seacoast, these places will be naturally free from flood troubles.

Same year: The government exempted Shantung and Kiangnam from taxes.

Twenty-eighth year, ninth month, edict: There has been a severe drought in the capital region, so the sowing season has been missed, and the year can have no harvest. Consequently the small people have great difficulty in getting their food provisions. It is clear that these poor people lack food for their mouths and should we still persist in levying taxes on them, they will have to wander and move around, and consequently lose their occupations. So be it ordered that all be exempted from taxes. And should the people still have to wander away and scatter or should some bad local officers and collectors want to cheat the government and levy taxes on these people privately so as to supply their own pockets, then not only these said officers and collectors will be punished, but also the governors of the said provinces will be punished severely.

Twenty-ninth year, edicts: The small people are ordered to save and accumulate as much rice and grain as they can.

All the provinces are ordered to establish "Normally Constant Granaries" (Yi Chang), Charity granaries (Ser Chang), Local granaries, etc., all over the districts, and the officers at each place are ordered to urge the people to contribute rice and grain to the granaries.

The *officers are ordered to help the people with oxen and seed, so as not to let any piece of land be left waste.*

Seventh month, edict: The twenty-seventh year had a rather good harvest. If the people had been economical in their ex-

penses, and had some storage and savings, they would not have had to suffer hunger in the twenty-eighth year when there was only a slight drought trouble. Yet the houses of the people were just as empty as an inverted worshipping bell (Ching). From now on, the people ought to be prepared beforehand and to make storage and saving from time to time.

Thirtieth year, edict: The government exempted the suffering doors in Shansi and Shensi. At this time the price of rice was very high, and many people had to wander away and leave their homes.

Thirty-second year, edict: The government reduced the land taxes in the two provinces such as Kiangnam (Kiangsu and Anhwei) and Chehkiang.

Same year, tenth month, edict: "There have been disaster and injuries continuously for many years in Shensi. The government has tried all possible means to relieve them, to transport grains (millet) to these places, and to exempt them from taxes. It has also tried to comfort and collect the wandering and moving people, and to give oxen and seeds to them. *Thus all the wandering people in the four corners have gradually come back to their native places.*"

The government exempted the taxes in silver and in rice in Shen Tien (Chili). The edict also says: "There has been too much rain in the capital region (Chili) and many fields have been flooded. Consequently there is no grain harvest and the price of rice is very high."

Thirty-eighth year, edict: Recently the places in Wei Yang, etc. have frequently suffered from flood trouble. The government has already exempted taxes and conducted relief and also has issued several millions of gold from the treasury in order to make all the officers responsible for the repair and building up of the river banks, etc. The idea was to make the flood go down to the ocean, thus recovering all the fields and dwelling houses which were flooded so that the people will be settled and content. Unfortunately the money has been spent in vain: the flood has not gone down, and the houses and fields of the people have not been recovered. Consequently the

people still have no way to make their livings so that it is pitiful to hear the description of their condition.

The government sold out grain at reduced prices at those places which had suffered from disasters.

In the north and south of Wei River (Anhwei and Kiangsu) the people have continuously suffered from flood trouble for a long time. So I, the emperor, feel deeply sorry for them. Thus they are to be exempted from all the land taxes, such as taxes on rice, beans, wheat, etc.

Forty-first year: Edict issued to the officers in the capital (Chili) who were natives of Shantung:

The province of Shantung is different from other provinces. There the small people on the farms are dependent on those who own properties and families; the former working and cultivating for the latter. During good years, those who own properties (landlords) receive a great deal, while the poor people receive very little. When once the years of misfortune occur, the poor people themselves really have no land at all (it belongs to the landlords); and consequently those of them who are physically strong will wander away and move to all the four corners, and those that are physically weak will have to die on the way and be buried in the ditches and trenches. Thus, those who own properties in Shantung ought to reduce the rent on their land, so as to give to their tenants plenty of provisions. In this way, it will not only be highly beneficial to the poor but also your fields and properties (shows that the officials were part of the class which owned a great deal of land) will not be left waste in the future.

Same year: There was continuously for many years, famine and drought in Shensi. After the government had conducted relief work, exempted taxes, and tried to comfort and collect the wandering, the people in Shensi were then slightly relieved.

Forty-third year, edicts: This year, the *province of Shantung is fortunate to have all the wind and rain in good seasons, and both the two wheats* (big and small) *and the rice crop have all been harvested. All the wandering* and moving people *have come back* to their own villages, and all the *returning people*

are satisfied with their cultivation and diggings (wells and waterways for irrigation and other purposes). *But still, if the government does not give great favor to them,* they *might eventually not be able to settle down in plenty and peace so quickly.* So be it ordered that the people in Shantung be further exempted from the land taxes in silver and rice (except the part of taxes to be transported to the capital) for the 44th year.

Same year, edict says: In Chili province, the rain and sunshine have all been in proper seasons, and *there has been a good harvest of* the rice crop in the autumn. *So the people are satisfied* with their occupations. *Only the price of rice in* Chili *has not yet been reduced owing to the fact that the disaster stricken people of Shantung who have* wandered and moved to the territory of Shen Tien and Ho Chain *are very numerous. Be it ordered that the people in Chili be exempted from the regular land taxes in silver and in rice for this year* (except the part to be transported to the capital).

Same year: The province of Shantung reports a flood disaster, and that the harvest of the fall rice crop has been reduced. The people are suffering and exhausted, yet they are willing to stay in their own homes as usual. This is because envoys have been sent there to take care of the people.

Forty-sixth year, ninth month, edict: If at present we save and help the people promptly, the country will be relieved. On the other hand, if we want to wait for contributions, then the people will all be wandering away and scattered.

Same year, tenth month, edict: In the province of Kiangnam (Kiangsu and Anhwei) the rain and sunshine have been in proper seasons successively for many years, so all the grains have been harvested, *and the people* in the villages and around the wells *are all satisfied and happy in their occupations. However* the *people are very limited in their saving and have no means for the emergency of famine.* As soon as they have to face insufficient years, they will have to suffer the trouble of insufficiency. In this year, from the summer to autumn the rain and moisture have been out of season, *so be it ordered that the people be exempted from land taxes,* and the government is to issue grain from the granaries to relieve the people.

On account of drought disaster, the government exempted the people in the districts of Kiang Ling county (Kiangsu) from all the unpaid land taxes, which amounted to 687,000 taels of silver and 311,800 loads of rice and wheat.

Same year, eleventh month, edict: "The taxes and service in the provinces of Kiangcheh (Kiangsu, Anhwei, Chehkiang) were much heavier than those of other provinces. An edict was issued to exempt the mouth taxes of 697,700 taels of silver in the provinces of Kiangnam and Chehkiang, and to exempt the disaster-stricken people in Anhwei, Kiang Ling (Kiangsu) and Chehkiang from land taxes."

An edict says: "Although the wheat fields in Kiangcheh have been good in harvest, yet the two wheats (big and small) are used as malt (for wine) and as yeast down in the south where the people are different from those in the north who are solely dependent upon rolls and noodles for their daily provisions (instead of rice). The people in the south depend solely upon the rice crop, while those in the north also plant Hsu and Gee (millet), Liang (Kauliang ?), Show (millet), etc. (besides wheat). Some people have carried seeds of Hsu and Gee and other vegetables, etc. from the north to the south for plantation, but most of them yield no harvest. It is because the soil conditions and geographical characteristics are different in their adaptations and we cannot help it. . . . In the north, if there is any shortage of rain, even for a month, yet no special harm is incurred. On the other hand, in the south, if there is any lack of rain during the summer and autumn even for only ten days, the fields become cracked and the rice sprouts gradually dry up. The Si Yu Tin Tsi (Memorial Narrative written by Auyang Show of Sung Dynasty) says, 'If there is any lack of rain for ten days, the farmers shall have no harvest of rice.' It is perhaps the conditions described above to which he has reference. The farming work in Kiangcheh (Kiangsu, Anhwei, Chehkiang, which represented the south) *depends entirely upon irrigation*. At present all the rivers, waterways, ditches and swamps are more shallow than in the previous periods, and it is all because we have no storage of water. . . .

Now after repeated consideration I find that for the permanent benefit of the people nothing seems more important than to build up the benefit of water works through the establishment of dams and dykes, etc., to store the water and irrigate the fields."

Forty-seventh year, seventh month. An edict was issued to the Labor Department as follows:

"Last year, the people in Hongchow (Chehkiang) suffered disaster. So be it ordered that the officers use the fund from the regular taxes to connect and clear the way for the branch rivers, ditches, swamps, etc. which have been made muddy or grown shallow."

Same year, tenth month: Edict issued to the Department of Agriculture as follows: When I traveled to the *south*, I noticed *that the wealth and plenty of the villages were far less than in the old times* (the last time he traveled to the south, perhaps only a few years previous). . . . *At present*, the universe has been peaceful for a long time and *the population becomes increased and multiplied day by day. Consequently the food supply becomes gradually insufficient*, and the provisions for expenditure are often short. This is however the natural tendency . . . I (the emperor) have especially cut down the expenditure for the government to make the treasury rich in storage and savings. So if we use the storage of the treasury for distribution among the people, it will allow wealth to stay with the people. Thus the people will be able to work hard and use their utmost strength on the farm and mulberry (silk culture). As a result, they will have plenty in their provisions of food and clothing. When the people have enough, why should we worry about the national expenditure being insufficient? . . . So be it ordered that the people in Kiangnam and Chehkiang be exempted from regular land taxes entirely (except the part to be transported to the capital).

Forty-eighth year, edict: The land in the counties Wan An, Yang Chow, Hsu Chow, etc. of Kiangnam is very low, and water has accumulated there. Therefore the people in these places have suffered from flood disaster especially. Be it ordered that all the regular land taxes (for the 49th year) of 593,800 taels of silver in these places be exempted entirely.

§ 4. *Emperor Shih Chung (third emperor), 1723-1735 A. D.*

REFERENCE: Huang Chow Wen Tsiang Tung Kao, Book on Land and Taxation, chapter on Systems of Taxation.

Reign Yung Ching, first year (1723):

Edict to the Interior Department (Hu Pu): "The country has been peaceful for a long time (100 years) and the population has rapidly increased. Thus the production of the soil is barely sufficient to supply the wants of the people, and should there be any famines or insufficiency, the people will have difficulty in getting provisions. *As the population is increasing all the time what will the people depend on for their occupation in the future?*

"The only way by which the government can benefit the people is by cultivation of waste land. The reason why the people have been afraid to start and cultivate waste land is that the officers (from governors to district officers) have asked all sorts of money from these people, thus making the expense for the recovery of waste land even higher than that for purchasing the same amount of land. Consequently many good lands have frequently been left waste and deserted. Is it not pitiful? From now on, if there is any waste land which can be cultivated in each province, the people are allowed to start out by themselves to make surveys and to start their work of cultivation, and then themselves make report to the government. The local officers are prohibited from asking any fees or charges from these people, and neither are tax collectors allowed to interfere.

"As to the regulations for fixing taxation on these recovered lands, the wet fields will be taxed after six years of cultivation (as usual, i. e., the usual tax) and the dry fields after ten years. And this regulation is to be a permanent one. All the local officers of counties, districts, etc., who are able to encourage the people to recover and cultivate much of the waste land will be promoted in their ranks.

"It is the aim of the government that there shall be no unoccupied or uncultivated fields in the country and that every family and individual shall have sufficiency and plenty, so as to reach the goal when the people will be enriched and the community wealthy."

The Interior Department is ordered to direct the local officers in the different districts to investigate and to find whether there is still some waste land which has not yet been cultivated and to encourage the people to cultivate the same. In case the people are not able to supply their own oxen, the government will lend oxen to them for use till after the harvest.

On the date when the recovered lands are taxed the people will be given official certificates for these lands, and they will be the permanent property of the people.

Reign Yung Ching, second year (1724):

Edict: Our country has been peaceful and has rested for several decades; and *doors and mouths have been multiplied from time to time. But the amount of land is limited.* So unless we can direct the whole force of the farmers to expend their strength on cultivation in order to multiply the harvest of different crops, how can we expect to find families and houses with plenty and satisfaction? . . . In every village we ought to choose one or two old farmers who have been industrious and diligent to give them a high grade of rewards in order to encourage the farming works. In this way the farming people will be greatly encouraged and the lazy farmers will be converted into diligent ones.

Same reign, fifth year (1727):

Edict: "I (the emperor) have heard that in Kiangnam (Kiangsu and Anhwei), Kiangsi, Hukwong (Hupeh and Hunan), Yuen Tung (Kwongtung), etc., there are rice crops which can be harvested twice a year. If this is true and yet the people have difficulty in getting their food provisions, it is clear that the strength of the soil is rather superfluous, but the works of cultivation and plantation are insufficient. Thus is it

not due to the fact that the small people are used to their lazy habits, and the local officers have not done their best to encourage and direct the people in their farming work?

"Some may say that if the rice crops are too plentiful, the price of grain will fall, and it would be very difficult for the farmers to sell out their products. About this, however, you people need not feel concern. If the small people are diligent in their work of cultivation and have a plentiful harvest which causes farmers difficulty in selling out their products, I will issue plenty of government money to buy the grain so as to enable the farmers, who have valued highly the profession of agriculture and who have worked hard on the principal occupation, to get the benefit and have superabundant returns."

§ 5. *Emperor Kao Chung (Chien Lung, fourth emperor), 1736-1795 A. D.*

REFERENCE: Huang Chow Wen Tsiang Tung Kao, Book on Land and Taxation, chapter on System of Land and Taxation.

Chien Lung, second year (1737):

Edict: "At present we cannot say that the territory is not very large, nor can we say that the people are not very numerous. So if we can expend the strength of the people of today to cultivate the land of today, I am sure that there will be plenty of accumulation for the emergency of disasters, and there will be no danger of flood and drought. But, on the contrary, the people who are following the branch occupations (not agriculture) are many, and land left waste and deserted sometimes in evidence.

"Even among the people engaged in farming, those in the south are not very familiar, and those in the north are entirely ignorant of the difference in the methods of cultivation, such as weeding with water, ploughing with fire, etc., and they are also ignorant about the adaptability of different crops such as millet on high land, rice in low fields, etc. If we do not consider

this to be the responsibility of the officials who else is there to blame?

"So I wish to direct all the people in the universe to expend their strength on the farms. But the responsibility lies on the governors as well as the district officers. These officers ought to be examples to the people, and they ought to so conduct themselves in order to direct the people. They should not work too hastily, nor should they make it unnecessarily complicated. Otherwise they will either not reach the goal or disturb the people unduly.

"The main purpose of the government is to make the people who are pursuing branch occupations, fewer gradually; to make the extravagant people cautious, and to cause the people who are working for accumulation and savings, to be encouraged."

Fifth year (1740), edict: "The population is constantly increasing, while the land does not become any more extensive. As a result the poor people have no means of making their living. So the government ought to devise some special plans to remedy the situation. I used to hear that in the region of few fields but many hills, there are many leisure (uncultivated) soils either at top of the mountains or at the corners of the land. All these soils are suitable either for rice or for miscellaneous crops (besides rice). The taxes levied on these lands will be very little, if any, while no matter how little return the people may receive from cultivation of these lands, it will be always helpful in supplying food provisions for the people.

"Besides, even in those plain fields (usually highly cultivated) there are also some pieces of land which have been left uncultivated, as mentioned above. If all these fields are left idle and waste it is really pitiful.

"From now on, all the odd pieces of land, whether in inland provinces or in border ones, which can be opened and cultivated, will be given out free to natives, both common people and barbarians (Chinese and Manchus ?), for cultivation and plantation. Besides, the strong and influential people are

strictly prohibited from taking any pieces of these lands by being required to first report to the government. This is done so that the ordinary people will be greatly encouraged to do the work and the country will leave no land waste and uncultivated."

Eighth year (1743), edict: "Sometime ago the Director of Transportation of the government grain (from land taxation) reported to me proposing to establish the policy of limitation of land ownership . . . every family to be limited to only thirty chuans. He thought that in this way the wealth of the people would be equalized, and the poor would be benefited.

"I know very well that although this policy sounds correct in name, it will be very difficult to carry out. Let me discuss somewhat further this question. If we limit the land ownership to thirty chuans those who own less than thirty chuans will be of course at liberty to buy more land. Even those who have already thirty chuans, can easily distribute the surplus to their brothers, sons, grandsons, etc. In this way each person will own only several chuans. Thus how can the system be injurious to the rich and how can it be beneficial to the poor?

"Moreover, if we do not follow up with inspection after the system of limitation of land ownership has once been adopted, it will exist only nominally, without any practical effect. It would require a thorough inspection of every door and person, and consequently the disturbance to the people would be incalculable.

"If this system is only disturbing temporarily for the time being, and is beneficial to the future, we should not be afraid of the difficulty and give it up on that account. But after I considered the question very thoroughly I found that even if the district officers made great efforts to carry out the policy of limitation, it would still be of no benefit to the poor people. Thus this system is not only useless, but harmful.

"Nevertheless, Koo Chung (probably the director of transportation) still considered it adaptable and proposed to direct the local officers to first try the system at Hwai An County (Anhwei). I ordered that he (Koo Chung) should consult

carefully with Yen Ki Sun (probably governor of Anhwei at that time) about the question. According to the report of Yen Ki Sun, there are many difficulties in the carrying out of the system, and his ideas incidentally coincided with mine. Therefore it is the opinion of everyone that the system of limitation should not and cannot be carried out. So how can we still want to try this system?

"Therefore I am issuing this edict specially to Koo Chung, to order him to stop the carrying further of his work on limitation. Besides, I want the governor of every province to know it."

PART III
SPECIAL TOPICS

EXPLANATORY NOTE

As stated in the introduction to Part II, the following topics are given special consideration because of their importance in the history of Chinese agriculture. When the study was begun, it was hoped to include two other topics, namely, Prices of Grains and Price of Land, and Conversion of Cultivated Fields into Pasture and Pasture into Cultivated Fields, but not enough data in reference to them could be found in the sources to warrant their special presentation.

The question of the equalization of the prices of grains has always been one of the highest importance in Chinese life, politically and locally, and many policies and movements in reference to it will be found in the source selections; but statistics of the prices of grain and price of land are only occasionally given and are too irregular and incomplete for any satisfactory conclusions to be drawn from them.

The question of pasture never occupied any position of importance in Chinese agricultural history. The word, "pasture," in the Chinese sense, is usually applied to grazing fields either for oxen or horses—not for other animals. Oxen were used for ploughing, while horses were for transportation or military purposes. At the beginning of the Han Dynasty, the raising of sheep was quite popular in certain parts of North China, but the extent to which the land was used for this purpose was probably small, and sheep grazing was never considered important in connection with rural production in Chinese history. Hence, the subject of conversion into pasture lands may be wholly left out of consideration in a study of the history of Chinese land conditions.

The remaining three topics are here presented following a study of the history of weights and measures in China which information is necessary for the correct understanding of the data presented for the different periods of Chinese history.

CHAPTER I

Weights and Measures [1]

The Chinese system [2] of weights and measures may be divided into three parts: a. weights ("han"); b. measures of capacity ("liang"); and c. measure of length ("tu").

References in regard to the first two parts are very incomplete. Fortunately they are not so important for this discussion as the third one.

a. *Weight (or "han").*

1. Emperor Shun (Yao and Shun).

One Yo of Yellow Cup contains 1200 grains of millet which weighs 12 Chus.

14 Chus = 1 Liang or Tael.
16 Liangs = 1 King or Catty.
30 Kiangs = 1 Chun.
4 Chuns = 1 Shih.

Emperor Shun preceded the Hsia Dynasty. It would

[1] References: *Chinese Encyclopedia,* Section 32, chapters 12-16 inclusive (Labor Section, chapters on "Weights and Measures"); also Section 27, chapters 41-63 inclusive (Section on "Food and Commodities," chapter on "Agricultural Administration").

[2] All measures were based upon the keyed tones or *Yellow Cup,* together with the millet grain. These keyed tones consist of the standard tubes, said to have been originated by Huangti and were first made of bamboo. Later they were made of jade, and then of brass and copper. The tubes were twelve in number, of the same diameter and circumference of bore, differing only in their lengths. Six of them gave the sharp notes on the scale and the other six the natural ones—together forming a chromatic scale.

Aside from its musical application, the longest tube, known as the *yellow cup,* was used as the standard of measure. Thus the breadth of a grain of millet was 1 *fen,* and 90 *fens* determined the length of the cup. Then thirteen and a half grains filled one *fen* of the cup, and 1200 grains filled the whole of it. And for weight, 100 grains of millet weighed 1 *chu.*

seem that Emperor Shun had the same standard as the Chow Dynasty, while Hsia and Yin must have had different units for weights and measures from the Chow Dynasty.

There is no actual record of an exact pre-Chow unit, so we really cannot tell about Hsia, Yin or Emperor Shun. It is to be noticed that the reference for Emperor Shun is not an original passage from the *Canon of History,* but only a commentary on the passage. It is possible that the units for Chow and pre-Chow were materially different, though they may all have derived their unit in the same manner, from the Yellow Cup.

2. From the earliest times through Chow, Han, the Three Kingdoms, until the middle of the Six Dynasties there seems to have been no change in the system of weights. Of course, when we say no change, we mean no decided changes, for it is quite possible that slight variations arose from time to time.

3. Northern Chi Dynasty 550-577 A. D.
Northern Chi was the first government which made decided changes: 1½ ancient catty = 1 catty in Northern Chi.
This was an increase of 50%.

4. Sui Dynasty 581-618 A. D.
Sui Dynasty made further increases: 3 ancient catties = 1 Catty of Sui Dynasty.
This was an increase of 200%.
At the end of Sui, the old system of weights was restored. But this restoration did not last long.

5. Judging from the present standard in comparison with the ancient one, it is probable that at the very beginning of Tang, the government went back to the Sui system, that is, the catty of our time is equal to three ancient catties.

Weight

Huangti to Chow (2698-1122 B. C.)	No accurate records
Chow to Chi (Northern) (1122 B. C.–479 A. D.)	Chow System
Chi to Sui (479-581 A. D.)	1.5 times Chow
Sui to Present (581 A. D.–present)	3 times Chow

b. *Measure of Capacity (or "Liang").*

1. Emperor Shun.

1200 grains of millet filled up the whole Yellow Cup. So much made 1 Yo.

10 Yos = 1 Ko; 10 Kos = 1 Sheng; 10 Shengs = 1 Tou 10 Tous = 1 Load or 1 Hu.

2. Chow Dynasty.

Chow is supposed to have used the same system as that of the Shun period, although there was another system in existence at the same time. This latter system has the same fundamental unit as the former, the difference being in the denominations, as follows:

4 Shengs (same Sheng as Emperor Shun's period) = 1 Tu; 4 Tus = 1 Chu; 4 Chus = 1 Foo; 10 Foos = 1 Chung.

(Therefore 1 Chung = 6.4 loads)

3. Han Dynasty.

Han Dynasty had the same system as that of Emperor Shun and the Chow Dynasty.

4. Northern Wai, 386-534 A. D. and Northern Chi, 550-577 A. D.

During the period of Northern Wai and Northern Chi the system was first radically changed, making 1 standard load equal to 1.5 load of ancient times—an increase of 50%.

5. Sui Dynasty 581-618 A. D.

3 loads (ancient) = 1 Load (Kai Huang Reign) an increase of 200%.

During the reign of Ta Yeh (2nd and last emperor of Sui) there was a restoration to the ancient system; but this restoration did not last long.

6. Tang Dynasty.

Since the Tang Dynasty, the measure of capacity seems to have changed from time to time.

7. At present, 1 load of modern measure is equal to 5 loads of the ancient (Chow).

Capacity

Huangti to Chow (2698-1122 B. C.)	No accurate records
Chow to Northern Chi (1122 B. C.–479 A. D.)	Chow System
Northern Chi to Sui (479-581 A. D.)	1.5 Chow
Sui to Yuan (581-1260 A. D.)	3 times Chow
Yuan[1] to Present	5 times Chow

c. *Measure of Length (or "Tu").*

(This is the item with which we are most concerned, and fortunately the records are most complete.)

English Equivalents of Present Chinese Measures (as Fixed by Treaty)

1 Tsi (Chinese foot) .....14.1 inches or 0.3581 meter
1 Mow (Chinese acre).....733½ square yards (6.6 mows equal 1 acre)
1 Li (Chinese mile) .....1894.12 feet

1 Sheng (Chinese pint)....about a quarter less than English pint

1 King or Catty .....1⅓ lb. avoirdupois, or 604.53 grams

The question of linear measure is rather complicated as it involves not only differences in fundamental units, but also differences in calculations. Thus, not only the length of a tsi (Chinese foot) may be different for each period; but also the number of tsi in each pu; and also the number of pu in each mow. The difference in the size of a mow for each different period will thus be the resultant of all these three different figures. The changes for the different periods are shown in the following table.

[1] We know that the Sui measure was three times that of Chow, and that the measure at the beginning of Tsing was five times that of Chow. Yuan is here assumed to be the time of change. References record that the ratio of Yuan to Sung was 10 to 7. Since the ratio of Sung to Chow was probably 3 to 1 (after Sui), the ratio of Yuan to Chow must be 30 to 7, which is more than four but less than five times that of Chow. For simplicity, we thus assume Yuan to have again changed the standard of measure (capacity) and also that it is the same standard as that used to-day.

TABLE SHOWING CHANGES IN LINEAR MEASURES

A[1]	B[2]	C[3]	D[4]	E[5]
Pre-Chow to 1122 B. C. (Hsia & Yin)	No actual records. "50 Mows of Hsia, 70 Mows of Yin, and 100 mows of Chow" were probably approximately equivalent.			
Chow Dynasty 1122–350 B. C.	class 1, a 1.00 Tsi	6	100	1.0 mow
Shang Yang to beginning of Han 350–206 B. C.	1.00 Tsi	6	240	2.4 mow
Former Han Dynasty 206 B. C. to 6 A. D.	(a) class 1, b 1.00 Tsi	6	240	2.4 mow
	(b) class 4 1.0307	6	240	2.549 mow
Later Han Dynasty 25–220 A. D.	class, 1, c 1.00	6	240	2.40 mow
End of Later Han 220 A. D.	class 11, a 1.258	6	240	3.216 mow
3 Kingdoms Wai Kingdom 220–265 A. D.	class 5 1.047	6	240	2.63 mow
Western Tsin 265–316 A. D.	(a) class 2, a 1.007	6	240	2.433 mow
Public Land Distribution	(b) class 1, d 1.00	6	240	2.4 mow
Eastern Tsin 317–420 A. D.	class 6 1.062	6	240	2.7 mow
Sung (House of Liu) (South China) 420–479 A. D.	class 12, a 1.064	6	240	2.72 mow
Liang Dynasty (South China) 502–557 A. D.	(a) class 2, b 1.007	6	240	2.433 mow
	(b) class 3 1.0221	6	240	2.506 mow
	(c) class 15 1.071	6	240	2.753 mow
Northern Wai 386–534 A. D. (North China) Public Land Distribution	(a) class 7 1.207	6	240	3.49 mow
	(b) class 8 1.211	6	240	3.518 mow
	(c) class 9 1.281	6	240	3.936 mow

[1] A. Name of Period or Dynasty.

[2] B. Length of one Tsi in that particular period compared with that of the ancient Tsi (Chow Tsi).

[3] C. Number of Tsi in one Pu.

[4] D. Number of Pu in one Mow.

[5] E. Equivalent value of one Mow in that particular period to the ancient Mow (Chow Mow).

TABLE SHOWING CHANGES IN LINEAR MEASURES—*Continued*

A[1]	B[2]	C[3]	D[4]	E[5]
Eastern Wai 557–581 A. D. (North China)	class 10 1.5008	6	240	5.4 mow
Northern Chow 557–581 A. D. (North China) Public Land Distribution	(a) class 11, b 1.158 (b) class 12, b 1.064 (c) class 9, b 1.266	6 6 6	240 240 240	3.216 mow 2.717 mow 3.84 mow
Northern Chi 550–577 A. D. (North China) Public Land Distribution	class 10 1.5008	6	*360*	8.108 mow
Sui Dynasty 581–618 (Whole China) Public Land Distribution	(a) class 9, c 1.277 (b) class 13 1.186	6 6	240 240	3.912 mow 3.375 mow
Tang Dynasty 618–907 A. D.	. . . . Tang probably used (a) standard of Sui Dynasty.	6	240	
Five Dynasties[6] 907–960 A. D.	class 16 1.02	6	240	2.496 mow
Sung Dynasty 960–1279 A. D. (Scale probably never used in practice)	(a) class 17 1.35 (b) class 18 1.0611 (c) class 19 1.2444	6 6 6	240 240 240	4.374 mow 2.7 mow 3.715 mow
Kin Dynasty (North China) 1115–1234 A. D. Yuan Dynasty 1260–1368 A. D. Ming Dynasty 1368–1644 A. D.	The Kin, Yuan and Ming Dynasties probably had the same system as (Yar Tsi) the Tsing Dynasty. For the land system as well as the whole political administration, was but a modification of the model of the Yuan Dynasty, which had a great deal in common with the Kin Dynasty in that both Yuan and Kin were northern barbarian.			
Tsing Dynasty 1644–1911 A. D.	(a) Cheh Tsi 1.25 (b) Yar Tsi 1.562	6 5	240 240	3.75 mow 4.07 mow

[1] A. Name of Period or Dynasty.

[2] B. Length of one Tsi in that particular period compared with that of the ancient Tsi (Chow Tsi).

[3] C. Number of Tsi in one Pu.

[4] D. Number of Pu in one Mow.

[5] E. Equivalent value of one Mow in that particular period to the ancient Mow (Chow Mow).

[6] Figures probably unreliable for this period of confusion.

Chronological Data for Interpretation of Preceding Tables

1. Pre-Chow Period.

Beginnings of Tsing Tien.

2. Beginning of Chow to Shang Yang (Chin Minister), 1122-250 B. C.

Tsing Tien Period. Standard of Measure is that known as ancient . . . 100 pu per mow.

3. Shang Yang, 350 B. C.

Abolishment of Tsing Tien. No recorded change in measurement of tsi (foot); but the number of pu in the mow changed from 100 to 240. Therefore the mow in Shang Yang's period is 2.4 times that of the preceding period. (See Soil Exhaustion reference.)

4. Shang Yang to End of Later Han, 350 B. C.–220 A. D.

No change in measures. Size of mow remains constant (240). System of private ownership instead of public distribution throughout period. Therefore a change in the size of the mow was not urgent even with soil exhaustion.

5. End of Later Han to Beginning of Northern Wai, 220 A. D.—386 A. D.

Private ownership except for a very brief period of 30 years. (Emperor Wuti of Tsin Dynasty, 270 A. D.)

Even with private ownership, the standard of measure began to show increase.

At the beginning of Western Tsin, Emperor Wuti tried to establish a system of public land distribution. At the same time he tried also to restore the standard of measure to the Former Han scale (tsi measurement same as ancient, but 240 pu in one mow) (Soil exhaustion and this restoration may explain why Wuti's system was so shortlived).

Period of Liang, 502-557 A. D. (fourth of "Six Dynasties"). Several scales in existence. The largest one was probably used for the most part in daily life, as it was called the "market ruler"; while the smaller ones were perhaps nominally in existence as official scales for

the measurement of musical instruments, official caps and gowns, etc.

6. Beginning of Northern Wai to Middle of Tang (Yang Yen), 386-780 A. D.

Period of revival of public land distribution; consequently the figures of measurement scales are significant in comparison with those of other public distribution periods, as they have a direct bearing on soil exhaustion.

Northern Wai is considered the best and most successful dynasty of this period, in that it had a comparatively long duration, whereas Northern Chow, Northern Chi and Sui Dynasties were all short-lived. (At the end of Northern Wai, North China was divided into Western and Eastern Wai. Northern Chow succeeded Western Wai, and Northern Chi succeeded Eastern Wai. Sui succeeded Northern Chow and finally unified the whole empire.)

Tang was a very long dynasty; but the system of public distribution of land continued in Tang for less than one hundred years. As references elsewhere indicate, the system of public distribution of land was never much of a success in Tang, and had decayed long before the time of Yang Yen, 780 A. D., who did away with the old system, and opened a new era with the establishment of the biennial tax system. Since the time of Yang Yen, the system of public distrbution of land has never been again revived.

It is very interesting to notice that the scale of measure in this whole period was much higher than that of the ancient; in fact, it reached the maximum in Chinese history.

In Northern Chi, not only the tsi was greatly increased; but the pus in one mow increased from 240 to 360, thus making one mow at that time equal to 8.1 times the Chow or ancient mow.

In Sui dynasty and at the beginning of Tang, the scale of measure seems to have gone back to the scale of Northern Wai (4 times as much as ancient or Chow). There is

little doubt, however, that the official adoption of the scale of measure did not cause it to be universally acknowledged, and many communities were probably still using the Northern Chi scale.

7. From Tang to present, 780-1911 A. D.

Period of private ownership. The question of size of measure did not play an important part, as there was no limit to the amount of land which one might hold.

Scale of measurement practically remained constant in the period (4 times that of Chow for 1 mow).

(Figures of Five Dynasties are unreliable as there could not have been any order or system in such a confused time.)

However, although the official scale in this period remained practically constant, it was not necessarily universally observed.

Thus for the end of Ming, Ku Yen Wu (1612-1681) tells us in his Erh Tsi Lo that some people were even using 6, 7 or 8 tsi for 1 pu instead of 5; and using 360 or 720 pu (square pu) for one mow instead of 240. This would mean that the scale actually used by the people at that time may have been as high as 8 or 10 times that of the official scale, and one mow may have been in actual practice 30 or more times as much as that of the Chow period. (See references elsewhere indicating that Ming was the worst period as regards soil production.)

EQUIVALENT VALUE OF THE MOW AT DIFFERENT PERIODS

Name of Dynasty	Equivalent of one mow at that particular dynasty to Chow measure (or ancient measure)	Dates
Chow	1.0 mow	1122–350 B. C.
Chin	2.4 mow	350–206 B. C.
Former Han	2.4 mow	206 B. C.–6 A. D.
Later Han	2.4 mow	25–220 A. D.
Three Kingdoms	2.63 mow	220–265 A. D.
Tsin	2.4 mow	280 A. D.
Northern Wai	3.5 mow	386–534 A. D.
Northern Chow	3.2 mow	557–581 A. D.
Northern Chi	8.1 mow	550–577 A. D.
Sui Wenti	3.91 mow	581 A. D.[1]
Sui Yangti	2.4 mow	606 A. D.[1]
Tang	3.91 mow	618–907 A. D.
Northern Sung	4.37 mow	960–1127 A. D.
Southern Sung	4.37 mow	1127–1279 A. D.
Kin	4.07 mow	1115–1234 A. D.
Yuan	4.07 mow	1260–1368 A. D.
Ming	4.07 mow	1368–1644 A. D.
Tsing (according to the Yar Tsi ruler)	4.07 mow	1644–1911 A. D.

[1] Note the decrease of measure at this time.

CHAPTER II

Special Land Problems

I. *Population and Amount of Cultivated Land*

Unfortunately, accurate census figures in reference to the population and the amount of cultivated land in any period of Chinese history are lacking, and those given in the records are probably quite erroneous. This is due to the fact that the number of doors and mouths, and similarly the amount of land, were concealed by the people in order to escape the taxation based on them. For example, we find that Kao Kung, a statesman of the Sui Dynasty, lightened the burden of taxation falling upon the free citizens, and that in consequence the population figures show an increase of from three to eight million doors within the nineteen years from 587-606 A. D.

A decree in 1712 said: "From henceforth the amount of poll tax will remain permanently fixed according to the number on the tax-roll in the year 1711, the forthcoming increase numbers (population) shall never be taxed." And as a result of this decree we find that the number of mouths had jumped by 1749 from 24 million to 124 million, whereas never before in history had the population been returned as over one hundred million. A decree of 1712 (Shang Tzu) read:

> The empire has been peaceful for a long time so that the population increases enormously. If I increase the amount of taxes according to the present number of population it is not right; for, although the population becomes larger, the acreage of land does not become wider. . . . Today the public treasury is very rich. Although I have frequently given exemptions, which amounted to ten millions, for several years, the national expenditure has never been hampered by lack of funds. Therefore I should take the number of people from the present tax-roll as a fixed number to be taxed, and the increased population of the future shall be exempted from any additional tax. What I want is merely a report of the true numbers.

Reigning Dynasty	Dates	Doors (Families)	Mouths (Heads)	Total Amount of Cultivated Land		Average Amount of Cultivated Land per door		Average Amount of Land per Mouth	
				A[1]	B[2]	A[1]	B[2]	A[1]	B[2]
Hsia Yu	2205 B. C. (about)	. . . . .	13,553,923	920,000,000	920,000,000	. . . .	. . . . .	68.0	68.0(?)
Chow Chen Wong	1115 B. C. (about)	. . . . .	13,714,923						
Han Pingti, second year	2 A. D.	12,233,062	59,594,978	827,503,600	1,986,008,640	67.8	162.8	13.9	33.3
Later Han Kwong Wuti, last year	57 A. D.	4,279,634	21,007,820					17.0	40.8
Mingti	58–75 A. D.	5,860,752	34,125,021						
Changti, Reign Yuan Shin, first year	76–88 A. D.	7,456,782	43,356,367	732,017,080	1,756,440,992	98.2	234.3	14.2	34.2
Hoti	89–105 A. D.	9,237,112	53,256,229					14.0	33.8
Anti, Reign Yen Kwong, first year	. . . . .	9,647,838	48,690,789	694,289,213	1,666,294,111	71.9	172.7	14.0	33.7
Shunti, Reign Chien Kong, first year	. . . . .	9,690,000	49,150,000	689,627,157	1,655,105,177	71 2	170 7	14.5	34.9
Chungti	145 A. D.	9,937,680	49,524,183	695,767,620	1,669,840,288	70.0	167.9		
Tsuiti	146 A. D.	9,348,227	47,566,772	693,012,338	1,663,229,111	74.1	177.8		
Hwenti or Whonti	156 A. D.	16,070,906	50,066,856						
Three Kingdoms	263 A. D. (about)	1,473,433	7,672,881						
Tsin Wuti	280 A. D.	2,459,840	16,163,863					128.	307.
Sui Wenti	587 A. D. (about)	3,600,000	. . . . .	1,940,426,700	7,587,068,397	540.	2,100.		
Sui Yangti, second year	606 A. D.	8,907,546	46,019,956	5,885,404,000	14,124,969,600	661.	1,587.		
Tang Tai Chung, first year	627–649 A. D.	3,000,000[3]							
Tang Kao Chung	650–683 A. D.	3,800,000							
Tang Chung Chung	684 A. D.	6,156,141							
Hsuan Chung, Reign Kai Yuan, 20th year	733 A. D.	7,861,236	45,431,256						
Same Emperor, Reign Tien Bau, first year	740 A. D.	8,348,395	45,311,272						
Same Reign, 14th year	754 A. D.	8,914,709	52,919,309	1,400,386,200	5,475,510,042	157.	615.	26.4	103.
Tang Sou Chung	756 A. D. (about)	1,933,124	16,990,386	Great Revolution					
Tang Der Chung	780 A. D. (about)	3,805,076	. . . . .	110,000,000	430,100,000	29.	113.		
Tang Hsien Chung	810 A. D. (about)	2,140,554							
Tang Mon Chung	821–824 A. D.	3,350,000							
Tang Tsin Chung	825–826 A. D.	3,970,000							
Tang Wen Chung	827–840 A. D.	4,357,573							
Tang Wu Chung	841 A. D.	2,114,960							
Same Emperor	845 A. D.	4,955,151							
Sung Tai Tso	976 A. D.	3,090,504	. . . . .	295,200,000	1,289,024,000	95.	415.		
Sung Tai Chung, Reign Tzu Dow, second year	976–997 A. D.	4,132,576	. . . . .	312,525,100	1,365,734,687	76.2	333.		
Sung Jen Chung	998–1022 A. D.	9,055,729	21,976,965	524,758,400	2,293,194,808	58.3	255.	23.8	104.
Sung Ren Chung	1023–1063 A. D.	10,723,695	21,830,064	228,000,000	996,360,000	22 8	99.6	10.4	43.8
Sung Yin Chung	1064–1067	14,181,486	20,506,980	440,000,000	1,922,800,000	31.4	137.	22.	96.1
Sung Sun Chung	1068–1085	17,211,713	24,969,300	461,600,000	2,017,192,000	26.8	117.	18.5	80.7
Sung Jer Chung	1086–1100	18,655,093	41,492,311						
Sung Hwai Chung	1101 -1125	20,264,307	45,324,154						
Sung Kao Chung	1060 A. D.	11,375,733	19,220,008	265,000,000	1,158,050,000	23.2	101.	13.9	60.9
Sung Hsiao Chung	1163–1189	12,335,450	25,378,684						
Sung Ling Chung	1223 A. D.	12,670,801	28,320,085						
Sung Li Chung	1125–1264	5,695,889	13,026,532						
Kin Shih Chung	. . . . .	6,789,449	44,705,086						
Kin Chang Chung	1207 A. D.	7,684,438	45,816,079						
Yuan Shih Tso	1290 A. D.	13,430.322	59,848,984						
Ming Tai Tso	1381 A. D.	10,652,870	60,545,812	850,762,368	3,462,602,838	85.	346.	14.1	57.2
Ming Chen Tso	1403 A. D.	11,415,829	66,598,337						
Ming Yin Chung	1436–1449	9,385,012	56,370,250						
Ming Hsien Chung	1465–1498	. . . .	65,442,680						
Ming Hsiao Chung, Reign Hung Tsi, fourth year	1488–1505	9,113,446	53,281,158	422,800,000	1,720,796,000	46.5	189.	8.	32.3
Same reign, 15th year	. . . . .	9,691,548	61,416,375	622,805,881	2,534,819,936	62.	261.	10.2	41.5
Ming Wu Chung	1506–1521	9,151,773	46,802,050	. . .	Civil War at this time				
Ming Shih Chung	1522–1566	9,972,229	62,530,195	436,056,270	1,774,479,020	43.6	177.4	7.0	28.5
Ming Sun Chung	1573–1619	10,621,436	60,692,856	701,397,628	2,854,688,346	70.1	285.	11.7	47.5
Tsing, Shen Tsi	1661 A. D.	. . . . .	21,068,609	549,357,640	2,235,884,862	. . . .	. . . . .	26.	106.
Tsing, Kanghi	1711 A. D.	. . . . .	24,985,040	607,843,002	2,473,921,018	. . . .	. . . . .	24.3	99.
Tsing, Chien Lung	1749 A. D.	. . . . .	177,495,039						
	1783 A. D.	. . . . .	284,033,755						
Tsing, Suien Chung	1842 A. D.	. . . .	413,020,000						
Republic, fourth year	1914 A. D.	59,402,315[4]	. . . . .	1,578,347,925					
Republic, fifth year	1915 A. D.	40,737,886[4]	. . .	1,316,900,961					

NOTE.—Kin and Sung Dynasties coexisted at the same time.

The figures for 1661 A. D. and 1711 A. D. represent the number of *adults* rather than the number of *mouths* of the empire, while the rest of the figures are supposed to represent the total months. Before 1661 A. D. the figures are supposed to represent the taxed mouths (mouths on tax records); and after 1712 A. D. more accurately the total number of months of the empire. The figures up to 1842 were taken from Part II; those for 1914 and 1915 from "The Fourth Statistical Report on Agriculture, Industry and Commerce" by the Statistics Bureau of the Department of Agriculture and Commerce of the Peking Government.

[1] Number of mows according to standard of measure in that particular period. [2] Number of mows according to ancient measure (Chow measure). [3] Less.

[4] Number of farming families.

However, despite the inaccuracy of the figures they are still significant in that they reflect the general conditions of Chinese history as well as the conditions of the special periods when properly interpreted.

The increase of Chinese population was interrupted chiefly by two causes: famine and war. War was especially important and consisted either of civil wars or wars with foreigners, mainly the northern barbarians. From these figures, the effects of warfare are easily apparent. In the beginning of Later Han, the population had been reduced by two-thirds; in the Three Kingdoms by about six-sevenths; in the beginning of Tang, by about two-thirds; and in the reign of Tang Su Chung, about five years time, by over two-thirds; in the beginning of Sung, by over a fourth; in the beginning of Southern Sung (1160 A. D.) by more than half; and in the beginning of Tsing, by over three-fifths.

For convenient reference, the following table has been arranged, summarizing the population and cultivated land in the different dynasties, together with calculations of the amount of land per door and per mouth, both in the scales of their particular period and of the Chow equivalent.

II. *Summary on Size of Land Holdings*

A. Periods of Public Land Distribution.

1. Huangti to Shang Yang (2698-350 B. C.).
2. Tsin Dynasty to Yang Yen (Tang) 280-780 A. D.

B. Periods of Private Ownership.

1. Chin, Han and Three Kingdoms (350 B. C.–280 A. D.).
2. From Yang Yen (middle of Tang), through Five Dynasties, Sung, Kin, Yuan, Ming, Tsing to the present (780 A. D. ——).

A. Size of Land-holdings in Periods of Public Land Distribution

With respect to the size of holdings in the periods of Public Land Distribution, the data are complete and simple as taken from the records and briefly shown in the following table:

SIZE OF LAND HOLDINGS DURING PERIODS OF PUBLIC LAND DISTRIBUTION

Name of Dynasty	Dates	Ages	Class regular or secondary adult	Sex	Subject to Reversion (acceptance and return)				Held in Perpetuity		Total Land (mows)	
					Arable Land (mows)		Flax Land (mows)		Mulberry Land (mows)			
					A	B	A	B	A	B	A	B
Huangti	2698 B. C.			Male	100	100? or less?					100	100? or less?
Hsia	2205–1766 B. C.			Male	50	100? or 50?					50	50? or 100?
Yin	1766–1122 B. C.			Male	70	100? or 70?					70	100? or 70?
Chow to Shang Yang	1122–350 B. C.			Male	100	100					100	100
Tsin	280 A. D.	16–60	Regular	Male	120	288					120	288
		16–60	Regular	Female	50	120					50	120
		13–15 61–65	Secondary	Male	95	228					95	228
		13–15 61–65	Secondary	Female	30	72					30	72
Northern Wai	485 A. D.	15 up	Regular	Male	40	140	10	35	20	70	70	245
				Female	20	70	5	17.5			25	87.5
Northern Chow	534–556 A. D.	18–65	Regular	Male	100	320					100	320
				Man with wife	140	448					140	448
Northern Chi	564 A. D.	18–66	Regular	Male	80	648			20	162	100	810
				Female	40	324					40	324
Sui	581–618 A. D.	18–60	Regular	Male	80	312			20	78	100	390
				Female	40	156					40	156
Tang From beginning to Yang Yen	618–780 A. D.	18–60	Regular	Male	80	312			20	78	100	390

Notes on Foregoing Table

1. For every kind of land distributed there are two columns, A and B. A represents the number of mows in that particular period; and B its equivalent in mows according to the standard of Chow measure.

COMPARISON OF UNIT OF AREA IN SECOND PERIOD OF PUBLIC LAND DISTRIBUTION WITH THAT OF CHOW DYNASTY

Dynasty	*Unit*	*Chow equivalent*
Tsin	1 mow	2.4 mows (assuming Tsin Chien Tsi was used)
Northern Wai .	"	3.5 mows (assuming Hou Wai Chien Tsi was used)
Northern Chow.	"	3.2 mows (assuming Hou Chow Yu Tsi was used)
Northern Chi .	"	8.1 mows
Sui.	"	3.9 mows (assuming Kai Huang Kwan Tsi was used)
Tang.	"	3.9 mows (assuming same as Sui Measure)

There is no actual record for the standard of measure before Chow. The writer's opinion is that it was the same as for Chow.

2. The land distribution to slaves, oxen, sick persons, widows, homes, etc. has been left out in order to make the table as simple as possible. The shares for the sick, the widowed and for homes are not very important as they represent only the exceptional cases. Those for oxen and slaves are significant in that they enabled the rich to hold in addition to their own share, the shares of the slaves and oxen. This was true only in the Northern Wai and Northern Chi Dynasties, since the other dynasties made no provision for slaves and oxen.

Fallow land in Chow Dynasty has also been left out for the sake of simplicity. Since we are mainly interested in the *minimum unit* one man was entitled to in the different periods, no important purpose would be served by including these complex details.

3. It is obvious that, taking into consideration the different standards of measurement, the size of land-holdings in the second period was far greater than that of the Chow Dynasty, averaging from 3 to 8 times as great.

Moreover, it is to be noted that in the second period, almost all the dynasties except Tang granted women as well as men land shares; thus more land went to one family than in the Chow period, when the man was the only member to receive a share of land.

4. The system of public land distribution in Tsin Dynasty lasted only about 30 years and there was an interim of almost two centuries before it was again taken up by Northern Wai.

5. The system of public land distribution in Northern Wai, Northern Chi and Northern Chow was carried out only in North China. South China was not affected, being under different dynasties—the so-called Southern Dynasties.

6. Northern Wai dynasty was practically the only dynasty in the second period, in which the system of public land distribution was actually carried out to a great extent. For Northern Chi, Northern Chow and Sui Dynasties were very short-lived, while in Tsin and Tang Dynasties, the system was carried out only for a very short time and with much difficulty. Indeed the system did not last more than 30 years in Tsin, if it was ever carried out at all, and the difficulties experienced by the Tang Dynasty in carrying out the system are well evidenced by the many references in our notes.

Even under Northern Wai, the law took away the houses and mulberry land only *from those* persons who were exiled to distant regions, or who had no descendants. The private property of the people in general was not touched. This is seen by consideration of the section dealing with mulberry land, or land held in perpetuity—for although the law allowed no one to sell his share, or to buy more than his share of mulberry land (20 mows) yet he who had more than that amount was allowed to retain it.

In other words, the system of Northern Wai, or rather of the whole second period from 280-780 A. D. was, in a strict sense, a system of land equalization rather than that of absolute land distribution, as it was in the case of the Chow Dynasty when the government had a free hand with all the land in the empire, and the people owned no land at all.

B. Size of Land-holdings in Periods of Private Ownership

Determination of the size of holdings in periods of private ownership is far more complicated than in periods of public distribution. No definite data can be had, as there was no definite allotment or distributing system. However, some light is thrown on the subject by study of the following points:

1. Change of Standard of Measurement, or rather Increase of Unit of Measurement.
2. Occasional Allotments or Distributions.
3. Movements to Limit Size of Holdings and Maximum Holdings.

1. Change of Standard of Measurement.

Under private ownership the change of standard of measurement does not play so important a rôle as under public land distribution, since under the former, the limit to one's holding was rather vague. However, in certain cases, we are given some light on the existing conditions:

a. In 350 B. C. Shang Yang, when he abolished Tsing Tien, at the same time changed the unit of mow, making it 2.4 times greater than the Chow mow. He directed that in allotments each man was to receive 100 mows as before, literally; but 100 mows were really to be 240 mows of the old standard.

b. And in Ming Dynasty from 5 to 8 tsi were used as 1 pu instead of only 5 or 6 tsi; also from 240 to 720 square pu were used as one mow instead of 100 or 240 square pu. That meant an increase of almost 800 per cent, on the mow unit at that time, thus revealing probably how land must have declined in productiveness to make such procedure necessary.

2. Occasional Allotments or Distributions.

Under private ownership, although there was no regular system of land distribution, there were occasional special allotments or distributions—usually of waste land to soldiers or

poor people. The following figures[1] are given for whatever help they may afford in indicating the size of land holdings of the different periods.

Tang Dynasty, Emperor Hsien Chung (806-820 A. D.), Reign Yuan Ho.

There were 15 Tans (units of soldier farms) in the system of Yin Tien (camp farms) in Tai Peh (north of Shansi, or Chili); and every Tan consisted of 130 men (soldiers). Everyone of these soldiers was to receive 100 mows (390 mows Chow).

(Soldiers usually had no families, but simply worked each for himself and the government, although sometimes they did have families to support.)

Northern Sung Dynasty, Emperor Tai Chung (second emperor), Reign Tan Kung, second year.

In the system of Tan Tien or Yin Tien there were 1000 men (probably without families) in one Tan, and every man was to receive *50 mows* of land.

(Assuming that Ta Foo Poo Pei Tsi was used, 1 Sung Tsi would be equal to 1.35 Tsi of Chow; thus 1 Sung mow was equal to about 4.4 mows of Chow. Therefore 50 Sung mows equalled 220 Chow mows.)

Under the same emperor. According to report of Chen Tsing, the allotments of waste land to civilians were as follows:

Superior[2]	Class Land....	100	mows	(Sung)....	equalled	440	mows	Chow
Medium	" "	150	"	"	"	660	"	"
Inferior	" "	200	"	"	"	880	"	"

Southern Sung Dynasty, Emperor Hsiao Chung.

Lin Shen proposed the imitation of Tsing Tien, and every man was to receive *150 mows* (660 Chow mows); but his proposal was not carried out.

[1] All the references are taken from the notes or sources given elsewhere.

[2] The words "superior class" are not here used in an absolute sense, but simply indicates a better quality of waste land. And being waste land, it was of course somewhat exhausted.

Kin Dynasty, Beginning of Dynasty.

The government distributed[1] land to the Barbarians and poor Chinese people. In sparsely populated sections, every man received 100 mows (407 Chow mows—1 Kin mow equalled 4.07 Chow mow); while in the thickly populated districts, every man received 10 mows (41 Chow mows). The secondary adults received half the amount.

Emperor Shih Chung, Reign Ta Tin, 27th year.

The government took over the public land (government land) from the hands of the officials or rich people, and distributed it among the poor. Every man received 50 mows (204 Chow mows).

Same reign, 29th year.

The government allowed a family which had 3 adults, and yet owned only 30 mows (122 Chow mows) of land, an addition of 120 mows (488 Chow mows) of public land, and took away the excess amount held by the rich so as to give it to the poor.

Yuan Dynasty, Emperor Shih Tso, Reign Tzu Yuan, first year.

The government distributed the pasture land[2] to landless farmers for cultivation. Every man was to receive not more than 400 mows (1628 Chow mows) and these lands were not subject to land taxation.

Same reign, 28th year.

The government recruited people (volunteers) to cultivate the waste lands in Kiangnam[3] (Kiangsu and Anhwei) and every family was to receive not more than 500 mows (2035

[1] This was a regular system of distribution, but only a means of helping the needy, and at the same time of getting more land under cultivation.

[2] This pasture land was probably situated in North China, as Yuan came from Mongolia.

[3] The land of Kiangnam had been usually considered very good and productive.

Chow mows—1 Yuan mow equalled 4.07 Chow) of land. These lands were to be their permanent property, and were to be taxed after three years' time.

Emperor Chen Chung, Reign Ta Der, first year.

The government removed the soldiers of Tan Tien (soldiers' farms) from Shun Yang into Nanyang (Nanyang was immediately north of Shun Yang). Every family (removed by the government) was to receive 150 mows (610 mows Chow) of land, and the government furnished seeds, oxen, and farming implements.

End of the Dynasty, Emperor Ta Shen Ti.

The government gave the public land of Shantung and Hukwong (Hupeh and Hunan) to the people for cultivation. Every adult male was to receive 300 mows (1221 Chow mows), as well as oxen and farming implements.

Ming Dynasty, Emperor Tai Tso (first emperor), Reign Hung Wu, 22nd year.

An edict was issued to the effect that every family in the five counties, Tsing, Yen, Ki Nam, Ten and Li, of Shantung Province, which consisted of more than five adults and yet which owned less than 300 mows (1221 Chow mows, 1 Ming mow equalled 4.07 Chow mows) of land, should be allowed to send some of its adults over to Tung Chang district (West Shantung) to cultivate waste lands there.

Emperor Yin Chung, Reign Chen Tung, first year.

The government gave some of the waste land of Honan to the Barbarians and their military officers who had surrendered. Every Barbarian was to receive from 50 to 80 mows (204-326 Chow mows) of land, while every Barbarian military officer was to receive from 100 to 250 mows (407-1020 Chow mows) of land.

Tsing Dynasty, Emperor Kang-hi (second emperor), sixth year.

The government distributed the *waste* land in Kiang-nam

(Kiangsu and Anhwei), Chehkiang, Kiangsi, Shantung, Shansi and Honan to Ming soldiers who had surrendered to Tsing commanders and every soldier was to receive 50 mows (equal to 204 Chow mows—1 Tsing mow equalled 4.07 Chow mows) of land.

Same emperor, seventh year.

Every former Ming soldier who had to support a family of five persons was to receive 50 mows additional (204 Chow making 407 Chow mows altogether). Smaller families were to receive each 10 mows (41 Chow mows, 245 Chow mows in all) additional.

Same emperor, 24th year.

Total acreage of Tan Tien (soldiers' fields) was 30,787,225 mows. The number of adults cultivating Tan Tien was 334,458, making an average of 92 mows for each adult (375 Chow mows).

3. Movements to Limit Size of Holdings and Maximum Holdings.

Landholdings under private ownership always tended to reach a maximum size in the different dynasties. Theoretically there was no maximum limit as to the size of holdings in such a period; but in practice we find that the public always became greatly alarmed if the size of holdings became unusually large. So the cry went up for a limitation policy, a confiscation policy, or even the restoration of Tsing Tien. It is interesting to note that no such policies were ever carried out successfully to any great extent, though they did no doubt serve as a check on the unlimited growth of large land holdings.

The following is a summary from our notes, of all such conditions in the different dynasties:

Former Han Dynasty, Emperor Wu-ti (140 B. C.).

Tung Chung Shoo proposed for the *first* time in Chinese history, the limitation policy, but it was not adopted by the emperor.

Emperor Cheng-ti (32-7 B. C.).

Shih Tan, the minister, proposed the limitation policy of restricting private holdings to 3,000 mow (7200 mows Chow) but it was not carried out. At this time, Chang Yu, the minister, owned 40,000 mows of land (96000 mows Chow) and others also owned large amounts of land.

End of dynasty, Wang Mang (9 A. D.).

Wang Mang tried to restore the system of Tsing Tien by the use of the confiscation policy, but he failed, and the law was dropped after three years.

Latter Han, Emperor Hsien Ti (last emperor) about 210 A. D.

Chung Chang Tung proposed to restore the Tsing Tien system but this was not done.

Three Kingdoms, Wai Kingdom, about 220 A. D.

Sze Ma Lan, an officer, proposed to restore the Tsing Tien but it was not carried out.

280-780 A. D. Second Period of Public Land Distribution.

Tang Dynasty, Emperor Hsien Chung (806-820 A. D.), Reign Yuan Ho.

Lee Chang proposed the system of Ping Foo (Equalization of Land Taxation) so as to equalize the land ownership (in imitation of Tsing Tien) but his proposal was not acted on.

Northern Sung Dynasty, Emperor Ren Chung (fourth emperor).

An edict was issued to the effect that the land holdings of dukes, high officials, etc., should be limited to 3,000 mows (13,200 Chow mows) and those of military officers to 1500 mows (6600 Chow mows), but the law was soon dropped.

Southern Sung Dynasty, Emperor Hsiao Chung.

Lin Shen proposed the system of Chen Pen (Fundamentals of Government Administration) so as to restore the Tsing Tien, but his plan was not carried out.

Emperor Li Chung.

Hsieh Fong Sou proposed a limitation policy and afterwards it was carried out by Chia Sze Dow in a most harmful and corrupt way which caused the overthrow of Southern Sung.

Kin Dynasty, Emperor Shih Chung, Reign Ta Tin, 21st year.

At this time the land holdings of one family with only one mouth were as high as 3,000 mows (12,210 Chow mows).

Also there were over 70 official families, which had a total land holding of more than 300,000 mows (1,221,000 Chow mows).

(The average holding of each of these 70 families would be 4,300 mows [17,500 Chow mows]).

The government proposed to limit the land holding of each family to 1,000 mows (4,070 Chow mows) but the plan was not carried out very successfully.

Yuan Dynasty, Shih Tso.

Chow Tien Lin proposed the limitation policy: every family of the princes, princesses, etc., should be limited to several ten thousands of mows (40,000 Chow mows) and that of officials and people limited to several thousands of mows (over 4000 Chow mows).

Ming Dynasty, Emperor Tai Tso (first emperor).

Fong Hsiao Yu, the great Confucianist, proposed to restore the Tsing Tien, but his proposal was not adopted by the emperor.

Emperor Chen Tso, Reign Yuan Loh, eighth year.

Chen Yin, the imperial censor, reported that Chang Sin Chen occupied land to the extent of over 7,000 mows (28,490 Chow mows).

Emperor Tai Chung, Reign Tsing Tai.

The author of Ta Show Yen Yi Poo (Chu Yueh) proposed the system of land limitation, but it was not adopted.

Emperor Wu Chung.

The land holding (Royal Farm) of Prince Hwai was as high as 700,000 mows (at least 2,849,000 Chow mows).

Besides many of the court favorites were each holding land as much as 100,000 mows (407,000 Chow mows).[1]

Emperor Si Chung (end of Ming).

The land holdings of princes, dukes, princesses, etc., often reached 1 million mows (at least 4,000,000 Chow mows) for each family.

(Ming was certainly the worst period, so far as land conditions were concerned.)

III. *Yields or Returns of the Land*

This question of yields was studied for its direct bearing on soil conditions subject however to many other influential factors such as flood, drought, worms, artificial works, etc. The following summarizes all the references obtainable on the subject. Incomplete as it is, it is given for whatever light it may throw on other related topics.

Summary from the references.

Chin Dynasty, first emperor, first year.

After the system of extensive irrigation, the yield of the land became very high: Every mow (2.4 Chow) yielded an annual harvest of 6.4 loads of grain. (*Chow measure 2.66 loads per mow*).

Wai Kingdom (Three Kingdoms).

At the beginning of Wai Kingdom,[2] 1 mow (2.6 Chow) of dry land received an annual harvest of more than 10 loads (*Chow, about 4 loads per mow*) while that of wet fields received several tens of loads per mow. (*Chow, about 8 loads per mow*).

[1] In all these figures, 240 square pu are assumed to have been used as 1 mow, and 6 Tsi as 1 pu. As a matter of fact, some were using even 720 square pu as one mow and 8 Tsi as 1 pu. In that case the figures ought to be eight times as great.

[2] This must have been an exceptional case at that time, as the condition of Wai Kingdom was very bad, *i. e.*, the soil conditions.

Tsin Dynasty, Emperor Wuti, Reign Tai Sze, fourth year.

At the time of Tsin Wuti, the annual harvest of land was only (in comparison to Wai Kingdom) several loads per mow. (*Chow, about 1 load per mow*).

Tang Dynasty, Emperor Kao Chung, Reign Du Lu, first year.

The annual (harvest) rent of Tan Tien (soldiers' fields) in Ho Yuan (probably north of Shansi) was as follows: For 500,000 mows of land (2,000,000 Chow mows) 1 million loads of grain were received (3 million loads Chow). (Thus 2 loads per mow Tang scale).[1]

Emperor Hsien Chung, Reign Yuan Ho.

In Tai Peh (north Chili or Shansi) there were 195,000 mows (about 800,000 mows Chow) of Tai Tien, and the total annual harvest was 200,000 loads (600,000 loads Chow) of grain which had a total value of 20,000,000 strings.

(In Tang scale, 1 load of grain per mow, and 1 load of grain was worth 100 strings. In Chow scale . . . about 0.75 loads per mow, and 66 strings per load of grain.)

Five Dynasties, Later Tang Dynasty, Emperor Ming Chung.

In the south fields of the city (capital) the total expenditure incurred to cultivate a definite amount of rice fields was 2,700 strings of cash, while the total annual harvest was worth only 1,600 strings, thus giving a deficiency of 900 strings. *The harvest did not cover expenses.*

Northern Sung Dynasty, Emperor Tai Chung, Reign Ten Kung, second year.

The annual harvest of Tan Tien was estimated (not actual figure, only estimate, and it was but natural for the estimate to be higher than warranted as the person making same was an

[1] Allowance must be made for Tan Tien in comparison with fields cultivated by civilians. Tan Tien were cultivated by soldiers, who were usually not skillful farmers. Besides Tan Tien was usually government property and soldiers working thereon would not be as careful as farmers working on their own farms or even on land belonging to landowners.

advocate of Tan Tien) at three loads per mow. Chow, about 2.25 loads per mow.

Emperor Yin Chung.

In Hopeh (Chili and Shansi) there were 36,700 mows (160,000 mows Chow) of Tan Tien, and the total annual harvest was 35,468 loads. (Chow, 106,404 loads).

(In Sung scale, about 1 load per mow; Chow, only 0.66 loads per mow).

Southern Sung Dynasty, Emperor Kao Chung.

There were 42,000 mow (184,800 mow Chow) of official (government) land, the total annual harvest of which was 4,800 loads (14,400 loads Chow) of rice and wheat.

(In Sung scale, about .1 load per mow; Chow, only .08 load per mow).

There were also 926,000 mow (3,704,000 mow, Chow) of Tan Tien, the total annual harvest was 167,000 loads (501,000 loads, Chow) of rice, wheat and miscellaneous beans.

(Sung scale, about .17 load per mow; Chow, only about .13 load per mow).

Emperor Li Chung.

There were 10,000,000 mows of land, *estimated* to give a total annual harvest of 7,000,000 loads (Chow, 21,000,000 loads for 44 million mows of land). Thus in Sung scale, .7 load per mow. Chow, about .5 load per mow.

Kin Dynasty, Emperor Shen Chung, Reign Jen Yu, third year.

In Honan, the total lands (official or government) rented[1] to the people were 24 million mow (97,680,000 mow Chow) of land, which gave *only* a total annual *rental* of 1,560,000 loads (4,680,000 loads, Chow) of grain.

(Kin scale, about .065 loads per mow; Chow, .044 load per mow).

[1] The exact ratio of the annual rent to the harvest is not known, but at least it was ten per cent and maybe as high as forty or fifty per cent.

Emperor Shen Chung, Reign Sin Tin, third year.

It was reported by How Tzu as follows: In Honan, the land was classified:

Superior Class, 1 mow yielded—1.2 loads grain per year.
(*Chow, about .8 loads per mow.*)

Medium Class, 1 mow yielded 1 load grain per year.
(*Chow, about .66 load per year.*)

Inferior Land, 1 mow yielded .8 load per mow per year.
(*Chow, about .55 load per mow.*)

外紀

Ai Ki, or Tung Chien Ai Ki (External Record), by Liu Shu of Sung Dynasty, 1086 A. D.

昌言

Chang Yen (General Discussion by Chung Chang Tung), an official under Emperor Hsien-ti, 179 A. D.

祭祀志

Che Ssi Tsi (Record of Sacrifice).

浙江通志

Chehkiang Tung Tzu (General Memorial of Chehkiang), compiled by Chi Tsen Yuan, Viceroy of Chehkiang, at the beginning of Tsing.

鄭樵通志

Chen Chow Tung Tzu (General Memorial or Records by Chen Chow, Sung Dynasty, 1149 A. D.

陳書

Chen Shu (Chen[1] Book), by Yao Shih Ling of Tang Period.

齊民要術

Chi Min Yao Shur (Essentials for the Equalizing of the People), by Chia Sze Si of Northern Wei Dynasty, 386-534 A. D.

齊語

Chi Yu (Narratives of Chi), written end of Chow?

賈誼新書

Chia Yi Sen Shu (New Book of Chia Yi), 200-168 B. C. First Han Dynasty.

澗水燕談錄

Chien Sher Yen Tan Lo (Manuscripts on Leisure Conversations of Chien Sher).

救荒活民書

Chiu Huang Huan Min Shu (Book on the Relief of Famine and the Saving of the People), by Tung Wai of Sung Period.

救荒本草

Chiu Huang Pan Chow (Book of Herbs and Grasses for Purposes of Famine Relief), by Prince Show of Chow, son of Emperor Tai Tso of Ming Dynasty.

舊五代史

Chiu Wu Tai Sze (Old History of Five Dynasties), by Hsieh Chu Chen of Sung.

[1] Chen was the fifth of the Six Dynasties.

周禮

Chow-Li or Chow Kuan (The Official System of Chow), compiled by Liu Hsin of First Han and attributed to the Duke of Chow in order to make the Duke a rival to Confucius. Liu Hsin was the National Teacher in 9 A. D., appointed by Wang Mang. The compilation of the Chow Li was in line with other work of Liu Hsin in making many corruptions in the Confucian classics to satisfy his literary taste and the political purpose of Wang Mang. Although Chow-Li is a compilation and not written by the Duke of Chow, it gives much information about old customs, institutions, and facts, because the materials are drawn from the old books.

周禮新義

Chow-Li Sin Yi (New Interpretations of Chow-Li), by Wang An Shih of Sung Dynasty, 1068 A. D.

周書

Chow Shu (Book of Chow[1] Dynasty), by Lin-Hu Te Fung, etc., of Tang.

周頌

Chow Sung (Chow Eulogy). A chapter of the Canon of Poetry.

朱子大全集

Chu Tze Ta Chuan Chi (Complete Collections of Chu Tze), by Chu Hsi of Southern Sung Dynasty, 1130-1200 A. D.

莊子

Chuang Tze (Monograph of Chuang Chow), written during period of Warring States.

春秋繁露

Chun Chiu Fan Lo (Many Dewdrops of "Spring and Autumn), by Tung Chung Shu during reign of Han Wu-Ti (140 B. C.).

杜佑通典

Do Yu Tung Din (General Records by Do Yu), written by Do Yu of Tang Dynasty, 780 A. D.

日知錄

Erh Tsi Loh (Manuscripts on Daily Knowledge), by Ku Yen Yu, at the beginning of Tsing, 1612-1681.

韓非子

Han Fei Tze, written by Han Fei Tze in the period of the Warring States.

[1] One of the Northern Barbarian Dynasties co-existent with the Six Dynasties.

漢書

Han Shu (Han Book). History of the Han Dynasty, by Pan Koo, of the Second Han, 32-92 A. D. Considered a very reliable reference.

杭州府志

Hongchow Foo Tzu (Record of Hongchow County), by Hsia Sze Chen of Ming Dynasty, 1436 A. D.

後漢書

Hou Han Shu (Later Han Book), by Fan Nieh of Sung Dynasty, of the House of Liu or the first of the Five Dynasties.

後山談叢

Hou Shan Tan Tsung (Miscellaneous Conversations of the Back Mountains) by Chen Sze Dow of Sung Dynasty. The greater part of this work refers to the various events in the Sung Period.

孝經援神契

Hsiao King Yuan Sun Chi (an Adjunct to the Canon of Filial Piety?) The Adjuncts are seven in number, one for each of the Six Canons and one for the Canon on Filial Piety. The Canons are the warp and the Adjuncts the woof.

荒政考畧

Huang Chen Kao Liu (Brief Researches on Government Relief Work). Probably the end of Ming or the beginning of Tsing.

荒政叢書

Huang Chen Tsung Shu (Miscellaneous Books on Government Relief Works), by Yu Sen of Tsing Dynasty.

荒政要畧

Huang Chen Yao Liu (Brief Research on Essential Government Relief Work). End of Ming or Tsing.

皇朝通典

Huang Chow Tung Din (General Records of Tsing Dynasty). Official compilation, Chien Lung, 32d year.

皇朝通考

Huang Chow Tung Tzu (General Record of Tsing Dynasty). Official compilation, Chien Lung, 32d year of Tsing Dynasty.

皇朝文獻通考

Huang Chow Wen Tsiang Tung Kao (General Researches in Literature and Authorities of the Tsing Dynasty). Official compilation, Chien Lung, 12th year, Tsing Dynasty.

淮南子

Hwei Ngan Tze, Monograph of Liu An, Prince of Hwei Ngan. First Han Dynasty. "Instructions on Topographical Conditions."

耕織圖詩

Ken Tsi Tu Sze (Agriculture and Silk Spinning, Illustrated), by Lu Tao of Sung Dynasty.

江南通志

Kiangnam Tung Tzu (General Records of Kiangnam), by Chow Hung An, Viceroy of Kiangnam at the beginning of Tsing.

金史

Kin Shu (Kin Book). History of the Kin Period by Tu Ker Tu of Yuan Dynasty.

欽定授時通考全書

Kin Ting Show She Tung Chuan Shu (An Exhaustive Treatise on Agriculture, Horticulture and the various collateral branches of Industrial Science). Compiled by Imperial Commission, including Prince Hung Chow in Tsing Dynasty.

荆川稗編

King Chuen Pi Pan (Supplemental Books of King Chuen), by Tang Shen Tsi of Ming, 1520 A. D.

古杭雜記

Ku Hong Zar Ki (Miscellaneous Records of Ancient Hong [Hongchow] Yuan Dynasty), published in Kiangsi.

古今治平畧

Ku Kin Tsi Pin Liu (Ancient and Modern Records of Government Administration). Ming or Tsing.

穀梁

Ku-Liang (Ku-Liang Commentary on Spring and Autumn), written by the disciples of Tzu Hsia. Spring and Autumn Period.

管子

Kuan Tze (Monograph of Kuan Tze). "Small Utopia." Spring and Autumn Period, 644 B. C.

國語

Kuo Yu (Narrative of Nations), by Tso Chin Ming, at the end of Chow Dynasty (Warring States). It was from this work that Liu Hsin of First Han wrote Tso's Commentary on "Spring and Autumn" in 7 B. C.

孔帖

Kung Ti (Copies of Kung), by Pei Chu Yi of Tang and continued by Kung of Sung.

廣平治署
Kwong Pin Tsi Liu (Brief Collection of Government Administration Records. Tsing?)

耒耜經
Lay Sze King (Canon of Farm Implements), by Lu Kwai Mu of Tang, 889-905 A. D.

禮記
Li Ki, Younger Tai's Record of Rites, compiled by Tai Sheng, second cousin to Tai Te, author of Elder Tai's Record of Rites. Written in First Han (Emperor Shenti), but the contents refer to the Three Dynasties—Hsia, Yin and Chow—in general and to Chow Dynasty in particular.

梁書
Liang Shu (Book of Liang, the fourth of the Six Dynasties), by Yao Shih Ling of Tang Dynasty.

遼史
Liao Sze (Liao History). Liao is a northern Barbarian Dynasty, co-existent with Northern Sung. Liao History is written by Tu Ker Tu of Yuan Dynasty.

明外史
Ming Ai Sze (External or Supplementary History of Ming).

明紀事本末
Ming Ki Sze Pan Mor (The Alpha and Omega of Ming Records), by Koo Yin Ta at the beginning of Tsing Dynasty.

明史
Ming Sze (Ming History), by Chang Tin Yu of Tsing Dynasty.

明通紀
Ming Tung Ki (General Records of Ming), by Chen Shen Ming.

明會典
Ming Wei Din (Government Record or Institutes of Ming Dynasty). Official compilation, 1497 A. D. Several revisions at later date.

夢溪筆談
Mon Chi Bi Tan (Written Dialogues at the Dreaming Brooks), by Shen Kuo of Sung Dynasty.

南齊書
Nan Chi Shu (Southern Chi Book), by Show Tze Hsien of Liang Dynasty. Southern Chi is the third of the Six Dynasties.

南史
Nan Sze (Southern History). A history of the Six Dynasties by Lee Yen Sou of Tang Dynasty.

農政全書

Nong Cheng Chuan Shu (Thesauras of Agriculture), by Hsu Kwang Chi, under the last Emperor of Ming Dynasty.

農家諺

Nong Jar Yen (Proverbs of Farming Families), by Tsui Shih of Second Han.

農說

Nong Sher (Expositions on Agriculture), by Ma Yi Lun of Ming Dynasty.

農書

Nong Shu (Book on Agriculture), by Wong Jen of Yuan Dynasty.

農書

Nong Shu (Book on Agriculture), by Chen Foo of Sung Dynasty.

農桑通訣

Nong Song Tung Jur (General Secrets on Agriculture and Mulberry contained in the Book of Agriculture), by Wong Jen of Yuan Dynasty.

農桑衣食撮要

Nong Song Yi Sze Chao Yao (Brief Essentials on Agriculture, Mulberries, Food and Clothing), by Hsu Ta Chuan of Tsing Dynasty.

孀眞子

Nun Jen Tze (Book of Nun Jen Tze), by Ma Yuan Ching of Sung.

本草綱目

Pan Chao Kong Mung (Descriptive Classifications of Origins of Botany), by Lee Shih Jen of Ming Dynasty.

盤庚

Pan Kan. (A chapter on Pan Kan, the Prince.) Part of the Canon of History.

北齊書

Pei Chi Shu (Northern Chi Book), by Lee Pei Yu of Tang Dynasty.

北史

Pei Sze (Northern History, dealing with Northern Wei, Chi and Chow Dynasties), by Lee Yen Sou of Tang Dynasty.

捕蝗考

Poo Huang Kao (Record of Destroying Worms), by Chen Fong Sen of Tsing.

山海經

San Hai King (Canon of Mountains and Seas). Reputed to have been written by Great Yu. Actual time not known except that it was before Han Dynasty, because we find a quotation from it in Sze-ma Chien's Historical Records.

三國志

San Kuo Tzu (Record of the Three Kingdoms), by Chen Sou of Tsin Dynasty, the first of the Six Dynasties.

四庫全書目錄

See Ku Chuan Shu Muh Lu (Index of the Imperial Library), compiled by officials at the beginning of the Tsing Dynasty.

新序

Sen Si (New Pamphlet), by Liu Hsun of Han.

新五代史

Sen Wu Tai Sze (New History of the Five Dynasties), by Au-yang Show of Sung.

新語

Sen Yu (New Narratives), by Lu Chia of Han.

商子

Shang Tze (Booklet or Monograph by Shang Yang). Gives a good picture of the condition of Chin State at the time.

山西通志

Shansi Tung Tzu (General Record of Shansi). Compiled by Chu-Loh Sze Ling, the Governor of Shansi, at the beginning of Tsing.

山東通志

Shantung Tung Tzu (General Records of Shantung), compiled by Yu Yueh, Governor of Shantung, at the beginning of Tsing.

沈氏農書

Shen Shih Nong Shu (Book on Agriculture), by Tsen, Esquire. End of Ming, Emperor Sze Chung.

荀子

Shin Tze, Monograph by Shin Tzu during period of Waring States, Chow Dynasty.

詩經

Shih King (Canon of Poetry). Poetry by Chow Dynasty writers, edited by Confucius, the first two poems excepted.

神農本草經

Shonnung Pan Chao King (Botany Classic of Shonnung), written by Miao Si Yung of Ming Dynasty. Description of different herbs and grasses and their medical use. The title of the book is as it is because Shonnung is supposed to be the first discoverer of these herbs. Hsu Ta Chuan, of Tsing Dynasty, wrote an abridged edition of this work.

學菴類稿

Show An Lay Kao (Collective Manuscripts of Show an). End of Ming?

書經

Shu King (Canon of History). Covers the history of China from Emperor Yao, 2357 B. C., to Duke Mu of Chin State, giving all the important documents of the period. The documents were taken as written by their different authors and edited by Confucius.

性理會典

Sin Li Wei Tung (A General Treatise on Mental Science), by Chen Tzu, one of the famous two brothers among classicists in opposition to Wong An Shih.

授時通考

Sou Si Tung Kao (General Records of Instruction on Seasons for Farming). Official Compilation, Tsing Dynasty, Emperor Kao Chung, 1736-1794 A. D.

續通典

Sou Tung Din (Continuation of General Records). Official compilation, Tsing Dynasty, Chien Lung, 32d Year.

續通考

Sou Tung Kao or Sou Wen Tsiang Tung Kao (Continuation of Wen Tsiang Tung Kao).

隋書

Sui Shu (Sui Book), by Wai Jen and others of the Tang Dynasty.

宋書

Sung Shu (Sung Book). This Sung was the second of the Six Dynasties. Work was written by Shen Yu of Liang Dynasty, the third of the Six Dynasties.

史記

Sze Ki (Historical Records), by Sze-ma Chien, 140 B. C.

大清會典

Ta Tsing Wei Din (Institutes of Tsing Dynasty or the Government Records of Tsing). Compiled by Tsing officials during reign of Emperor Kao Chung, 1764 A. D.

太平御覽

Tai Pin Yu Lun (Imperial Documents of Tai Pin Reign), by L. Fong, second year of Reign Tai Pin Sin Kuo of Sung, 977 A. D. Very rich in materials.

泰俗訓

Tai Sou Shen (Instructions on Great Customs). Warring States Period?

唐書

Tang Shu (Tang Book). Written jointly by Au-yang Show and Sung Chi of Sung, about 1030 A. D.

地理通釋

Ti Li Tung Sze (General Interpretation and Exposition of Geography), by Wong Yin Ling of Sung Dynasty, towards the end of that period.

曾氏農書

Tsen Sze Nong Shu (Book of Agriculture by Tsen, Esquire.) Probably Ming?

晉書

Tsin Shu (Tsin Book). Deals with Tsin, the first of the Six Dynasties. Written by Fong Giao of Tang.

册府元龜

Tsur Fu Yuan Qwai or Kwei (A Complete Collection of All Records), by Wong Tsing Yu of Sung Dynasty, 1005 A. D.

圖書編

Tu Shu Pein (Literature and Illustrations), by Chang Huang of Ming, probably slightly after Emperor Shih Chung, 1522 A. D. A collection of Pictures and Writings.

東坡志林

Tung Bo Tsi Ling (Miscellaneous Manuscripts of Tung Bo). Tung Bo is a special name of Su Sze (1036-1101 A. D.) of Sung Dynasty.

通紀會纂

Tung Ki Wei Zen (Complete Compilation of General Records). End of Ming or Tsing.

魏書

Wei Shu (Wai Book). Book on Northern Wei Dynasty, by Wi Su of Northern Chi Dynasty, 550-577 A. D.

王盤農書

Wong Pan Nong Shu (Wong Pan's Book of Agriculture). There were two Wong Pans, one Yuan Dynasty, 1277, and the other, Ming Dynasty, 1506. This is probably the Ming writer.

文獻通考

Wen Tsiang Tung Kao (General Research in Literature and Authorities), by Ma Tuan-Ling, 1322-1370 A. D., of Yuan Dynasty. A very comprehensive collection of extracts from all kinds of authoritative writings from the beginning of written records to the 13th century, classified according to topics, with occasional comments and explanations by the author.

王制

Wong Tsi (Royal Regulations), a chapter of the Record of Rites or Li Ki.

野客叢談

Ya Ker Tsung Tan (Miscellaneous Conversations of Strangers from the Rural Districts), by Wong Mow of Sung Dynasty.

野菜博錄

Ya Tsia Pau Lo (Complete Treatise on Wild Vegetables), by Bau Shang in Ming Dynasty. Quite similar to the work Chiu Huang Pan Chao.

野菜譜

Ya Tsia Poo (Wild Vegetables, Illustrated). Compiled by Wong Pan and Hung Shen of Ming Dynasty.

楊子法言

Yang Tze Far Yen (Precepts by Yang Tze), written by Yang Hsun in Han Dynasty, 7 B. C.

鹽鐵論

Yen Tieh Lun (Debate on Salt and Iron). A discussion on the Government Monopoly, written by Huan Kuan during the reign of Han Hsuan-ti, 73-49 B. C.

玉海

Yu Hai (Jade Sea), by Wong Yin Ling of Sung Dynasty. A literary production and considered a very well written book.

呂子

Yu Tze (Book of Yu Tze), written by him during the period of the Warring States.

元史

Yuan History, by Sung Ling, at the beginning of the Ming Dynasty.

VITA

Mabel Pinghua Lee was born October 7, 1897, in Canton City and is a native of Namhoi, Kwangtung, China.

While at home she studied Chinese under private tutors.

Her education in this country was received at Columbia University. She first studied at Barnard College majoring in history and philosophy then did her work for the Master's Degree at Teachers' College in educational administration. She chose economics as her field for the doctor's degree and studied under Professors Edwin R. A. Seligman, Henry R. Seager, Henry L. Moore, Vladimir G. Simkhovitch, Wesley C. Mitchell and Robert E. Chaddock, attending the seminars conducted by them.

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